

AMERICAN *Cinematographer*

★ THE MOTION PICTURE CAMERA MAGAZINE ★

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May
1943



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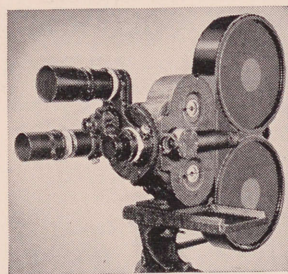
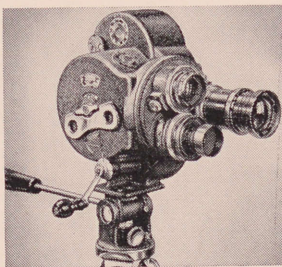
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AMERICAN INEMATOGRAPHER

THE MOTION PICTURE CAMERA MAGAZINE

VOL. 24

MAY, 1943

NO. 5

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The Front Cover

This month's cover shows a sergeant-cinematographer of the British Army Film and Photo Unit in action in the Western Desert of Africa filming a scene for "Desert Victory." Note the cameraman's companion with tommy-gun at the ready, and shell-burst in near background. We regret that military regulations prohibit identifying either the cinematographer shown or the still-man who made the picture.



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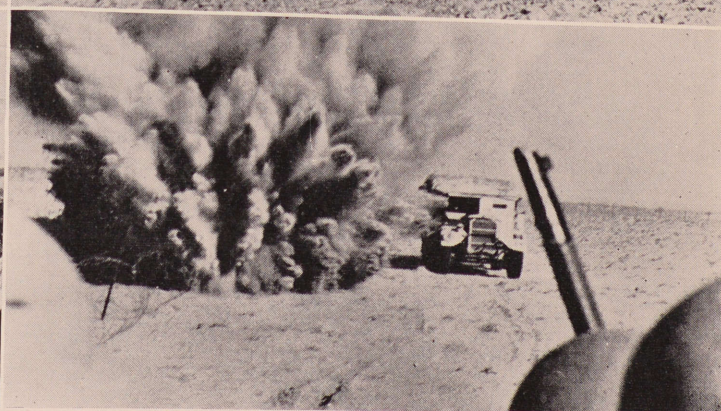
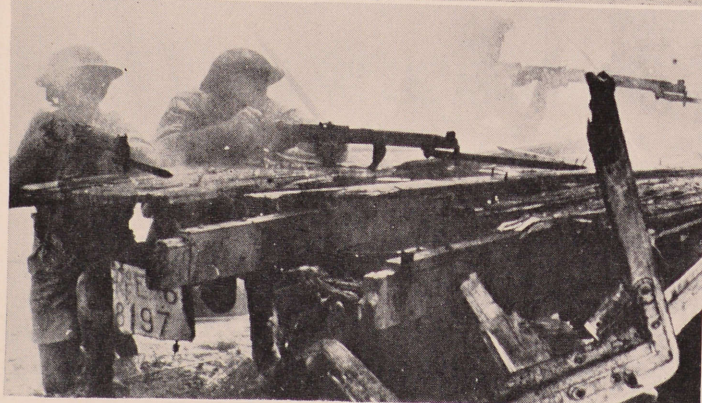
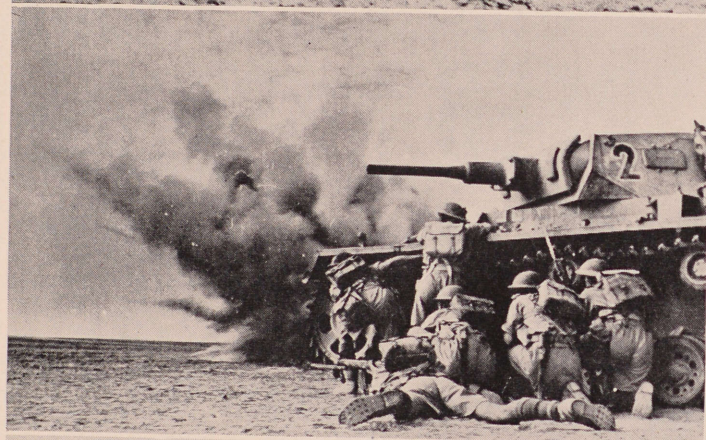
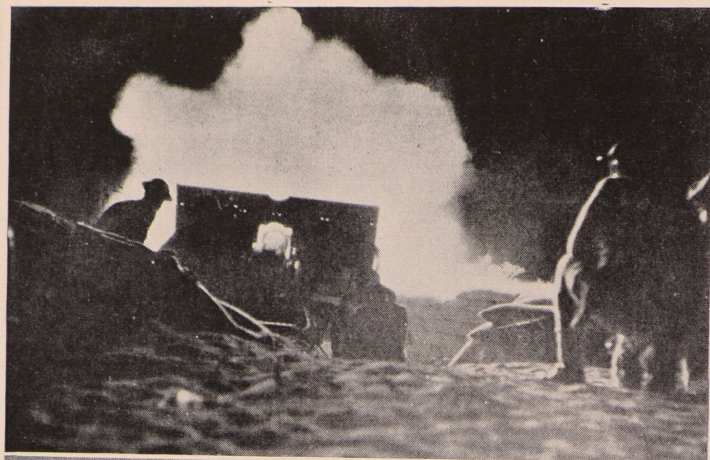
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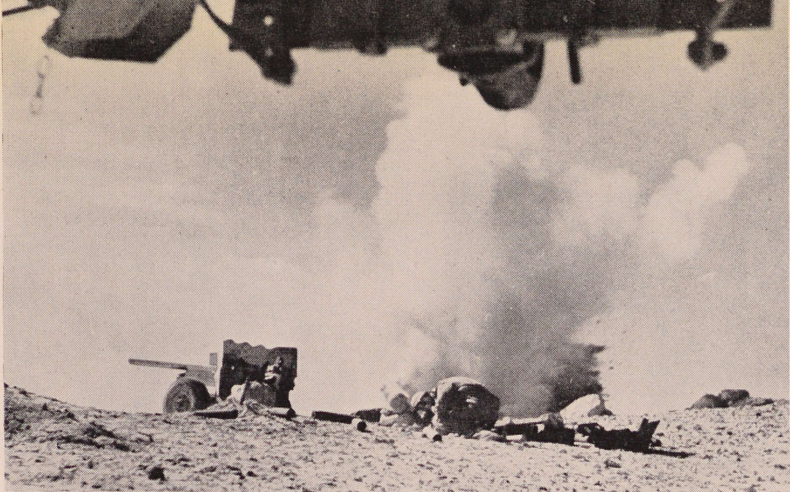
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FRAME ENLARGEMENTS FROM "DESERT VICTORY." Top row, left, opening barrage at El Alamein, filmed by flare from the cannon's mouth. Right: Sappers clearing a path through the mine-field before British advance. Second row, left: "Tommies" drop as shell bursts in background. Right: Infantry advance while their comrade receives first-aid in foreground. Third row, left: Infantrymen take cover behind a tank while a shell bursts too close for comfort; right: accompanying the tanks into action. Bottom row, left: Riflemen fire across a still-burning lorry. Right: dive-bombing a road convoy; note foreground "frame" of helmets of riders in truck in which cameraman rode.



Filming "Desert Victory"

By LT.-COL. DAVID MacDONALD, HON. A.S.C.

Officer Commanding, British Army Film and Photo Unit

As Told to WM. STULL, A.S.C.

THE story behind the making of "Desert Victory" really began almost exactly three years ago, in the spring of 1940. At that time the then War Minister and the Minister of Information, Sir Brendan Bracken, were persuaded by various figures in the British Film Industry that a well-organized motion picture and photographic reportage unit would be of value both to the Army and to the Nation's information service.

In due course the nucleus of such a unit was formed, and I was commissioned and placed in charge of it. After getting some of the basic organizational work under way, I crossed to France to discuss practical arrangements with the commanders of the B.E.F. and with the officers in charge of the French military motion picture services. By this time it was the summer of 1940, and then, as you know, things began to happen very suddenly. Those of us who were lucky found ourselves back in Britain, with the job of re-equipping and rebuilding an Army on our hands, and precious little to do it with.

That was the point where the building of the A.F.P.U. really began. We faced a problem which I believe rather parallels that which has been faced by the U. S. Military and Naval photographic units since Pearl Harbor. Like you, we in Britain had the foundation of an active and capable professional motion picture industry upon which to draw for key personnel; we had cameramen, sound recording engineers, cutters, directors, writers, laboratory-men, and both studio and newspaper still-men.

But one thing our experience in the Battle of France had taught us: for front-line service, cameramen, no less than soldiers, must be young—and fit—in order to keep up with their fast-mov-

ing subjects. And while I fancy our British studio technicians average somewhat younger than Hollywood's, because our industry there is younger, by and large they still averaged a good bit over the age when they would be most capable of going into the field and keeping up with combat units through day after day of grueling fighting. Besides, in the many kinds of educational and entertainment films to be made at home in the field and on the studio, they had quite a job to do, too.

So, very much as I gather some of the American military motion picture units are doing, we had to go afield—beyond the ranks of the recognized professional cinema industry—for our combat camera crews. Starting with a nucleus of key professionals—cinematographers like Capt. Osmond Borradaile and H. W. Rignold, whose experiences have already been related in THE AMERICAN CINEMATOGRAPHER, sound engineers, unit managers, assistant directors, and the like—to provide the basic training and organizational staff, we recruited our actual combat camera personnel from other, younger groups both within and outside of the professional industry.

Some of our cameramen had been assistants or film-loaders in the studios. Others had had a bit of picture-making experience as assistant directors, laboratory technicians, prop-men, and the like in the studios. Others were recruited from among the amateurs—very good chaps, some of these, in both still and movie work—and we got some excellent still photographers from among the newspaper still-men from both the London and provincial papers. Some of these men had had quite a bit of photographic experience before joining the Service;



ACTION IN THE DESERT! A remarkable series of frame enlargements from "Desert Victory." Above, left, a shell bursts close to an anti-tank gun. Right: gun crew already feeding their piece, while wounded comrade is led to side. Below: The gun in action, while wounded man (foreground) receives first aid.

others had never before had a camera in their hands.

In this connection, I'd like to make it clear that none of the men in my unit were impressed or, as you say in America, drafted. Every one of the officers and men in the unit were volunteers. This fact justified itself very excellently by the courage and enthusiasm the men showed in doing their work—often at extraordinary personal risk—once they got under fire.

In this organizing period, during the Battle of Britain and the Commando raids on Norway and other points, our chaps got a bit of experience working under fire. But it was not until last year, when the entire unit was sent out to North Africa and attached to General Alexander's Middle East Command that we really got shaken down into a cohesive military combat camera unit. Then our chaps learned to handle their cameras under actual battle conditions, and the commissioned personnel learned—also under actual field-service conditions—to cope with the problems of organization and supply which are so essential not only in getting films and photos of combat, but in getting them back in the shortest possible time. These latter activities do not have the glamor of front-line combat camerawork, but they

(Continued on Page 186)



AMERICAN AND RUSSIAN CINEMATOGRAPHERS MEET. Front row, left to right, Soviet ace cameramen Nicolai Litkin, Ruvim Khalushakov, Vladick Mikosha, and Vassili Soloviev. Standing, in rear: Maj. Elmer Dyer, A.S.C., U.S.A.A.F.; Lt. Harold Wenstrom, A.S.C., U.S.N.R.; Al Brick, newsreel ace who "covered" Pearl Harbor; Lt. A. L. Gilks, A.S.C., U.S.N.R.; Lt. Arthur Arling, A.S.C., U.S.N.R.; Lt. Ray Flinsky, U.S.A.A.F.; Capt. Gilbert Warrenton, A.S.C., U.S.A.F.; Lt. Joe August, A.S.C., U.S.N.R.; Sgt. Peverell Marley, A.S.C., U.S.A.A.F. Photo by Roman Freulich.

Hollywood Greet Four Soviet War Camera-Aces

By WILLIAM STULL, A.S.C.

THE unusual vigor and reality of the documentary films which have lately come out of Soviet Russia is a bit more clear to several score of Hollywood's leading cinematographers who recently had the privilege of meeting and entertaining four of Russia's wartime camera-aces. These four Soviet cinematographers—Nicolai Litkin, Vladick Mikosha, Ruvim Khalushakov, and Vassili Soloviev—had all been serving continuously on the Soviet-Nazi fronts since the Germans invaded their country nearly two years ago. They had participated in the making of such notable war documentaries as "Moscow Strikes Back" and "One Day of War." They had been decorated for their front-line achievements, and three of them had received the Soviet's highest cultural award—the Stalin Prize—for their achievements.

Their visit to Hollywood was in itself in the nature of a reward for their work at the front, though not an easy one, for they were on a round-the-world trip making a cinematic record of the convoys which fight their way from England and America to Russia bearing supplies for the armies which are battling so tenaciously against the Wehrmacht. On this assignment, all four were attached to the Soviet Merchant Marine, with rank equivalent to that of Lieutenant Commander, and when not photo-

graphing, served as officers of the ships on which they sailed.

Like so many of Russia's artists and engineers, these men were young—three of the four in their early thirties, and the fourth but a few years older—and like most Soviet film people, they had entered the industry through the four-year course at their Government's Central Cinema Institute, where cinematographers, sound-engineers, film-editors, and other technicians, as well as directors, writers and players, are trained for their careers as are doctors or lawyers in this country.

Though the barrier of language made it difficult for the cinematographers of the two countries to communicate readily with each other at the banquet given jointly by the governing boards of the A.S.C. and of Cameramen's Local 659, the Hollywood group soon found that in matters of equipment they were all on familiarly common ground. Most of the Russians' front-line camerawork, for example, was done with Russian-made versions of the familiar Eyemo and DeVry hand-cameras, though DeBries were more common in studio use. Lens-equipment was largely the familiar Cooke objectives, and though some Soviet-made film was used, a great deal of work was done on the familiar Eastman Super-X.

Since for so many years Russia, in solving her vast educational problem,

has leaned heavily upon the documentary film, it is only natural that these warrior camera-aces should all have specialized largely in making documentaries. Cinematographer Khalushakov, for example, related that for twelve years after his graduation from the Cinema Institute, he had specialized in filming documentaries. Previous to his wartime achievements, he considers his most notable achievement the filming of "Sodov," a film showing the work of the Soviet ice-breakers near the North Pole.

The conditions under which this film was made were complicated not only by the fact that many of the scenes were made with the aid of flares during the three-months-long Polar night, but because he had constantly to work at temperatures of 50 degrees below zero. The production, however, was successful and won him a decoration from his government.

In his wartime work, Khalushakov has specialized to a considerable extent in filming the work of the tank units. This work, he states emphatically, is particularly difficult for the cameraman. If one works inside a tank—as is necessary if he is to keep pace with the battle—there are smoke and vibration to contend with, and also an extremely restricted field of view. In the scenes he made for "One Day of War," he made his shots through the narrow vision-slit of the tank; the tank-commander stopping, whenever possible, to give him as nearly vibrationless a shot as possible, and then proceeding with his primary purpose of beating and destroying the enemy armor and other troops.

Dangerous—? But that of course, he says. The life of any good front-line cameraman is risked at any moment, for he has to be where the most spectacular shots are to be had. That, in turn, means that the men who fight with cameras must be in the front lines, or even ahead of them. On one occasion he and the unit with which he was working got so far ahead of the lines that they were completely surrounded by Nazis, with many Stukas and Messerschmitts bombing and strafing them. It took twenty-five days to fight their way out of that encirclement. But, he adds with a ready grin, in doing it they reduced the strength of the German Army somewhat—and brought out spectacular photographic evidence of Soviet courage!

Cinematographer Mikosha has specialized largely in camerawork with the Russian Navy. Since the outbreak of the war he has been attached to all types of naval vessels, from cruisers to destroyers, PT boats and submarines,

(Continued on Page 193)



Left, Executive Vice-President Fred W. Jackman; right, President Leonard Smith.



L EONARD SMITH was elected President of the American Society of Cinematographers at the Society's annual election last month. He succeeds Fred W. Jackman who, after two successive terms as President, now assumes the important post of Executive Vice-President and Business Manager of the A.S.C. Arthur Edeson and Arthur Miller were elected Second and Third Vice-Presidents, respectively. Byron Haskin was re-elected Secretary-Treasurer, and George J. Folsey, Sergeant-at-Arms.

The Board of Governors for this, the Society's twenty-fifth year, consists of President Smith, Vice-Presidents Jackman, Edeson and Miller, Treasurer Haskin, Sergeant-at-Arms Folsey, and John Arnold, John W. Boyle, Joe MacDonald, Sol Polito, Ray Rennahan, Charles Schoenbaum, Leon Shamroy, Ralph Staub and Joe Walker.

The new President is a veteran of the industry. Making his start with the Vitagraph studios in the pioneer days of the movies, more than 30 years ago, he has been an active member of all of the various organizations, on both the East and West coasts, which eventually led to the present A.S.C.—the original Motion Picture Camera Club of New York, organized in 1911, the famous Static Club, the Cinema Camera Club of California, and so on. During World War I he was a cinematographer in the Signal Corps of the U. S. Army, and spent 14 months in overseas service. During much of this time he was at the front; later he was attached to General Pershing's staff, and finally to President Wilson, in which lat-

LEONARD SMITH ELECTED PRESIDENT OF THE A.S.C.

ter post he filmed the signing of the Versailles Treaty. For the past sixteen years he has been on the camera staff of the Metro-Goldwyn-Mayer Studio, where he has distinguished himself as a leading director of photography in both black-and-white and color. He was one of the first, if not actually the first "production" cinematographer to make a Technicolor picture single-handed, without the assistance of a Technicolor specialist, and several of his achievements in Technicolor have placed him in the Academy Award nominees exclusive circle.

Discussing his plans for his term as the A.S.C.'s fourteenth chief executive, the new President said, "I feel that I am taking this office at an unusually favorable time. The negotiations Fred Jackman started for divesting the A.S.C. of the responsibility of overseeing the economic welfare of directors of photography as a collective bargaining agent—an activity never intended by the Society's founders—are now virtually complete, and this important duty will soon be placed in the efficient hands of Local 659, I.A.T.S.E. This will put a stop to a long and sometimes unnecessarily acrimonious dispute within the

craft, and will give the camera profession greater strength by having all of its members from top to bottom represented economically by a single, all-embracing agency.

"At the same time, this move will enable the A.S.C. to revert back to its original function as a social and educational society or guild for directors of photography, as it did so successfully for the first fifteen years of its existence. Only today we intend to make its activities for its members and for the advancement of the camera profession generally much stronger, and on a wider scale than ever before. The program of regular social and educational meetings, which had to be neglected during the period when economic considerations took up so much of the officers' and members' time, will be resumed. An active and widespread campaign of publicity in the interests of cinematography and cinematographers will be inaugurated. Personal business management will be available for members whose salaries are above the Union scale, and therefore outside the purview of Local 659.

"In all of this, I want to make it
(Continued on Page 192)

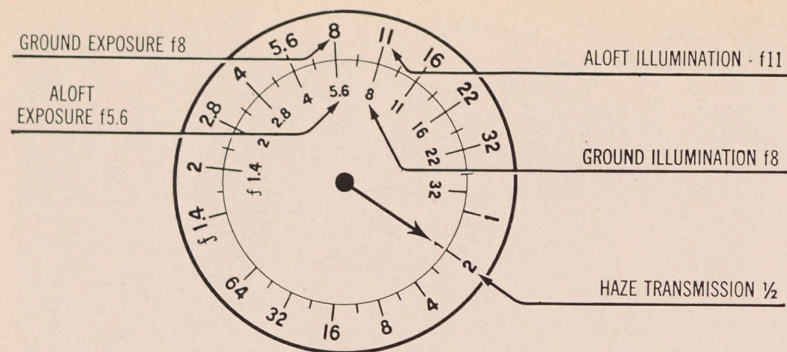


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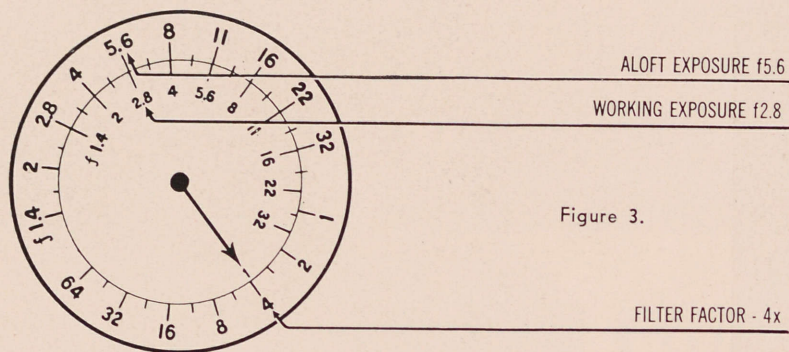


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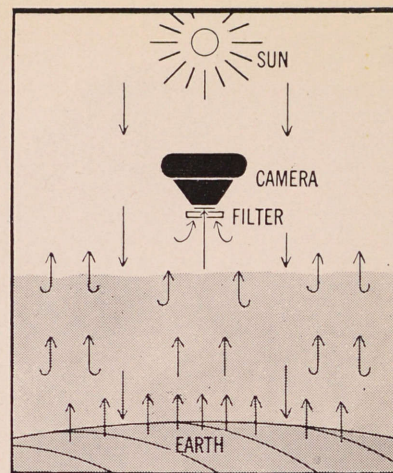


Figure 1.

EXPOSURE CONTROL IN AERIAL PHOTOGRAPHY

By CAPT. D. W. NORWOOD, U.S.A.A.F., (Ret.)

COMPENSATING for the effect of aerial haze as an exposure factor is one of the biggest problems of modern aerial camerawork, whether still or movie. A great part of modern operational flying, including bombing and photographic reconnaissance, is done at altitudes of 20,000 feet or more. At these altitudes there is almost always a thick blanket of haze interposed between the camera and that part of the earth's surface which is being photographed. This haze consists largely of moisture in the air, with the addition of minute but innumerable particles of fine dust and smoke.

This blanket of haze acts in three ways in its effect upon exposure. In the first place, it absorbs a definite proportion of the light falling on the subject as the sun's rays go earthward through the haze; this absorption is dependent on the thickness of the haze blanket. Secondly, it absorbs an equal proportion of the light reflected upward from the earth to form the image in the camera. Thirdly, a portion of the light falling on the haze from the sun is reflected upward again—often so much that un-

less a filter (or sometimes a pola-screen) is used to cut out this reflected light, the resulting picture is likely to be more a picture of the haze itself than the terrain beneath it.

Determination of correct exposure for stills or movies taken with the camera pointing straight down from the plane will therefore involve three factors: (1) the intensity of the light coming from the sun at the plane's photographing altitude; (2) the intensity of light actually falling on the terrain being photographed (*i.e.*, factor 1 minus the absorption factor of the haze blanket); and (3) the amount of light finally reaching the camera-lens to form the picture (*i.e.*, factor 2 minus the factor of the haze-blanket's absorption, which is proportionally equal for light going either down or up.)

Any system of exposure-determination which does not take into account these three factors will be more than likely to produce an erroneous result. For example, a simple measurement with a reflected-light meter, with the meter pointing downward from the plane, would make no allowance for the amount of

light reflected upward by the haze itself, and would also fail to give any measure of the doubled absorptive influence of the haze itself on both the direct light illuminating the subject and the reflected light forming its image. Similarly, a simple incident-light measurement of the illumination aloft would fail to measure or allow for the haze absorption, reflection, etc.

However, a very simple method of measuring these factors by means of the Norwood Exposure-meter has been devised, together with a system of deriving the true "aloft exposure" therefrom.

The first step is to measure the incident-light illumination at ground level, before taking off. Since the camera will be used overhead, shooting straight down, this is done by reading the meter with its hemispherical light-collector pointing directly *up*. The exposure indicated by this reading would be correct for taking pictures of the ground at low altitudes of from 100 to 200 or 300 feet.

The next step is to take a second reading when the plane is in the air at approximately the altitude from which the pictures will be taken. This, too, is taken with the meter's light-collector pointing straight up.

The relative values of these two readings will indicate how much illumination has been absorbed by the haze blanket as the light makes its downward trip. Obviously, the haze will absorb an equal proportion of the reflected, image-forming light on its upward trip to the lens. For this reason it is necessary to modify the "ground exposure", as determined by the first reading, by a factor derived from the transmission characteristic of the haze, to arrive at the true "aloft exposure" at which the picture should be made.

For example, suppose the "aloft illumination" is twice as great as the "ground illumination." This means that the haze blanket transmitted only one-half the light on its downward passage, and in turn will transmit only one half the light actually reflected from the subject on its upward passage to the cam-

(Continued on Page 191)

FOR the sixth time in its twenty-four year history, the American Society of Cinematographers has bestowed its highest honor—Honorary Membership. The recipient of this zealously-guarded distinction is Lieutenant Colonel David MacDonald, founder and head of the British Army Film and Photo Unit, whose film of the British Eighth Army's pursuit of Rommel across the Western Desert of Africa, "Desert Victory,"* when previewed before the membership of the A.S.C., evoked the most enthusiastic response any film has ever received from this group, and an unparalleled standing ovation to the man under whose guidance it was made.

In citing Colonel MacDonald for this highest honor within the bestowal of the A.S.C., President Leonard Smith and Executive Vice-President Fred W. Jackman stated that Honorary Membership in the American Society of Cinematographers is awarded only to those most outstanding individuals whose contributions to the progress of cinematography have had a basic and enduring



A.S.C. President Len Smith hands Lt.-Col. David MacDonald the gold card of honorary membership in the American Society of Cinematographers while Executive Vice-President Fred W. Jackman looks on.

BRITISH WAR CAMERA ACE WINS HONORARY A.S.C. MEMBERSHIP

effect upon the camera craft. "In the past," said President Smith, "we have bestowed Honorary Memberships on the men who invented the motion picture and made it a practical possibility, and upon those whose creative effort has given us perfected tools with which to work. Today, in giving this honor to Colonel MacDonald, we are honoring another man who has made a fundamental contribution to the progress of cinematography, for Col. MacDonald has brilliantly pioneered the use of motion pictures as a dynamic part of the United Nations' War Effort. We are all the more ready to give him this honor because of his repeatedly expressed conviction that the real credit for his production belongs to the cameramen of his command who did the actual camerawork at and beyond the firing front. That is what we would expect, perhaps, of a truly fine gentleman and soldier such as our new Honorary Member: but his modesty cannot conceal the fact that without his own ability, vigor and broad vision, the cameramen of Britain's Eighth Army could never have had the chance to do the magnificent work they have done in advancing the use of motion pictures in our united War Effort. We hope that many of our own members now in the film services of the United States' Armed Forces will be privileged to follow along the paths he has pointed out; but meantime, we are proud to honor the man who has so brilliantly shown us all what can be done."

In accepting his honor, Colonel Mac-

Donald stated that he was personally gratified almost beyond speech at the high and surprising honor done him. "But," he said, "I don't accept this so much in a personal way as I do as a tribute to those men in my command who actually did the work. We have some damn fine lads there in the Western Desert, men who have gone through a deal of blood and toil to prove what motion pictures can accomplish in modern warfare. I know that this honor you have paid to all of us through me will inspire them to carry on even more valiently to justify this very great compliment given them by you gentlemen to whom they look up as the greatest exponents of cinematography in the world. Since Tripoli our chaps have photographed another 170,000-odd feet of battle films, and soon, as our united armies push Rommel finally into the sea, we'll be able to send you back another picture to show you how we're carrying on in our united effort."

The distinction of honorary membership in the American Society of Cinematographers is, as has been said, so seldom bestowed that it has become internationally recognized as the highest cinematographic honor. Up to the time Col. MacDonald received the golden card emblematic of his membership, but five others had been so honored. The first of these was the late Thomas A. Edison, "the father of the motion picture." The next was the late George Eastman, without whose celluloid film Edison's invention would not have been possible. Some years later, the third of these honors was awarded to Albert S. Howell,

of Bell & Howell fame, who first gave the industry precision-engineered cameras, printers, film-perforators, and the like, to replace the crude equipment of the pioneer days. The Society's fourth Honorary Member was George Mitchell, who designed and with the collective cooperation of the membership of the A. S. C. perfected the Mitchell camera which for nearly twenty years has won and maintained its place as the world's standard studio camera. The fifth Honorary Member was Edward O. Blackburn who during the many years he has represented the J. E. Brulatour organization in Hollywood has endeared himself to the camera profession not alone through aid in technical matters, but by his inestimable services as a guide, counsellor and friend to all cameramen.

The addition of Lt. Col. MacDonald to this select group—the first other than an American to be so honored—is a fitting tribute to equally great and timely achievement. As the organizer and head of the British Army Film and Photo Unit, he has pioneered in the latest and currently the most important use of cinematography—as a vital instrument of modern warfare. As the coordinating genius behind the photographing and editorial completion of "Desert Victory," he has not only given the United Nations a production which ranks as the greatest film document yet to come out of the war, but has brilliantly proven what all cinematographers—British, Russian, Chinese and American alike—so strongly believe: that motion picture film, correctly used, can be as valuable as bullets in our united effort toward victory. END.

* See Page 175.



Aces of the Camera XXVIII:

Milton Krasner, A.S.C.

By WALTER BLANCHARD

ONE of the publicists' favorite clichés is the story (often only too true) of the little starlet—or script-writer—or director—who grew up right across the street from a Hollywood studio, but just couldn't get a job there until she (or he) travelled dispiritedly to New York, "clicked" on Broadway or the radio, and came home to a big contract and a swimming-pool.

We hate to spoil the publicity-men's dream, but Milton R. Krasner, A.S.C., is a living refutation of their pet success-story. Of course, he didn't live in Hollywood, but in New York: but there he lived right down the street from one of the biggest of the early studios—Vita-

graph. And when he was about fifteen years old, he marched down the street to the Vitagraph studio and—got a job.

But if the start was easy, what followed wasn't; it took Milt the better part of the following fourteen years to really make his mark on the profession and emerge as a full-fledged director of photography. He started, like many another, in the laboratory. Then he switched for a while to cutting—just long enough, he says, so he knew how to make a good splice, and have a slight idea of what goes on in the editing process.

Then he got a chance to go out on a camera, as an assistant—a utility job which was just beginning to appear in

the better studios. He carried the camera-cases, held the slate, loaded and unloaded the magazines, and so on, for about six months. And then he was promoted to the more important job of Second Cameraman which, despite its importance, has proven so much of a dead-end street for so many fond photographic hopes. And there he stayed for more than ten years.

"But," he'll remind you, "in those earlier days a Second Cameraman's job wasn't what it is today. I think Bob DeGrasse put it right a couple of months ago when he said that the Second Man's work then was more nearly like that of an associate cinematographer. Most companies used two cameras on the set: the first one, operated by the First Cameraman, made the negative used for printing the domestic release. The second one was operated by the Second Cameraman, and made the negative used in making the foreign release-prints. I suppose that's how those titles developed.

"And twenty-odd years ago, the Second Cameraman had a good deal wider scope of action than he has today. When the going got tough and the front office put on the pressure to hurry up to meet the release-schedule, the company would often split into two units, a good deal as it does today. Only in those days, the Second Unit would be in charge of a good Assistant Director and the Second Cameraman.

"Then, as the laboratories found how to make better dupe negatives for printing the foreign release, the need for the old-time Second Cameraman dwindled. At the same time, though, the complexities of the First Cinematographer's job began to increase—especially as sound came in—and there grew to be a real need for an experienced man who could take full responsibility for operating the camera, while the First Cinematographer concentrated his full attention on lighting, composition, and the dramatic aspects of his job. So today's Operative Second Cameraman was born.

"But those years I spent as Second and Operative were the best sort of training anyone could have. I worked on all kinds of pictures—big ones and little ones—with the very best cinematographers in the industry. I learned not only what *one* man would do, but what half-a-dozen really great cinematographers would do when confronted by some similar problem, whether it was lighting some particular type of face, or figuring out the execution of some peculiarly difficult set-up or dolly-shot.

"That's why no 'school' of photography other than the old college of hard knocks can really turn out a studio cameraman. Just think of the tremendous investment represented not only by the big major-studio 'specials' I worked on with such masters as John Seitz, A.S.C., Hal Mohr, A.S.C., Lee Garmes, A.S.C., and the others, but also on the scores of tough little program quickies and westerns. Just as a matter of plain dollars

(Continued on Page 186)

THROUGH the EDITOR'S FINDER

THERE has been a growing tendency of late among the industry's so-called top-flight cinematographers to insist on what might be called "limited-term" contracts. Instead of seeking hungrily (as may have been necessary in those earlier days when cinematographers' salaries were not what they are now) for the greatest possible number of weeks drawing salary on a studio's payroll, regardless of what type of picture he might be assigned to, more and more of today's ace cinematographers are asking—and getting—contracts which, while carrying top salaries, put a definite limit upon the amount of time the producer can work the cinematographer. In some cases, that maximum is expressed in weeks—say from 30 to 36 weeks out of the year. In others, it is expressed in terms of productions—usually three or four top-bracket, long-schedule ones in the course of the year. In most instances these new-day contracts give the cinematographer the vitally important right to choose or refuse productions the same way an established star or director does.

To our mind, this is one of the greatest forward steps the cinematographer's status has taken in many a long year. It is a practice we believe should be encouraged, not only by the cinematographers themselves, but by the producers as well, for in the long run it benefits both.

To start with, the director of photography is rightly regarded as one of the two or three key men of production. If the producer's responsibility is to see to it that script, casting, physical mounting and the myriad other details of production are well in hand before the picture reaches the shooting stage, and the director's is to see to it that the cast most perfectly tells the story handed him, it is the cinematographer's responsibility to achieve perfection in the visual translation of the story from set to screen—and often enough to "carry" an inefficient director, or to cover up deficiencies in the physical details of production mounting, as well.

In all of this, the director of photography is expected to keep up, both physically and mentally, with directors, producers and players who spread their vacations over from three to six months a year.

When the man of the camera has gone from picture to picture with only days, or even hours, in between, this just isn't in the cards. When, as in too many cases we know, the cinematographer has been kept busy not merely the full 40 weeks of the traditional contract, but the year's full 52, and may have gone without any real vacation for three, four or even five consecutive years, even the strongest of physical and mental stamina must break down. Under such conditions, he cannot give his best photographically; he must inevitably slip, to

some extent at least, into routine, "formula" photographic treatments in place of more original lightings and compositions which might conceal pitfalls for a tired man. Certainly he can neither give his best cooperation to an experienced director, nor his professionally best protecting guidance to an inexperienced one.

In other words, under such circumstances the studio is not receiving, and cannot receive, the fullest value of the photographic skill for which it is paying.

On the other hand, entrusting a job of camerawork to a man who films but three or four pictures a year, and has plenty of time between for rest and relaxation means inevitably that the man at the camera will be physically and mentally fresher . . . able to serve more creatively at his own job, and also to exercise more alertly the care for the producer's interest as regards cooperation with the director, and the glossing over of wartime production shortcomings, which are so equally a part of his job.

In other words, the producer will get more for his money on such a basis than he ever can under the traditional get-the-most-work-possible policy of handling cameramen.

It may be argued that such a policy, in view of today's increasing shortage of trained camera personnel—especially in and near the so-called top-bracket class—would result in a serious shortage of what the producers like to term "A-picture cinematographers."

In reality, it wouldn't. It would result in the opposite discovery that *there really are no "B-picture cameramen."* There are plenty of cinematographers who photograph nothing but "B-pictures"—largely because they've been typed as fast-working "B-picture" men, and have never had a chance at an "A." Put almost any one of them on a production with the greater production values, the longer schedule and more generous budget that makes an "A," and you'd find you were getting "A-picture photography" on the screen. After all, it doesn't take such a very long memory to recall when most of today's top camera stars were shooting "B" and "C" pictures, and doing none too brilliantly at it . . . when Lee Garmes was doing "quickies," and Ted Tetzlaff Westerns . . . when Charlie Lang was on the verge of being fired for indifferent work on program pictures, and Gregg Toland and Bill Daniels were only hopeful assistants. There are plenty of men doing that same type of pictures today who need only a chance at a really major "A" to put them up into the Academy Nominees circle.

So we hope this new trend toward "limited term" contracts spreads, for it will keep the studios from killing off some of their biggest camera-assets through sheer overwork, and it will open up an entirely new field of new, but

thoroughly experienced men already able, and oh so willing to handle with distinction even the industry's biggest camera assignments. And given the chance, they'll do it well.

SOME day we hope someone will be able to sum up all the important jobs 16mm. is doing in this global war. Among those we can think of immediately offhand are the making of countless military and industrial training and research films—the latter using not only 16mm. but even 8mm. at times for super slow-motion studies of fast-moving machinery—to further the War Effort directly; the use of 16mm. cameras and sound-recorders to record the data obtained in test-flying aircraft; its use in battle photography by our own Army and Navy, and in camera-guns of both the British and American Air Forces to bring back a photographic record of the firing of each gun—and the results obtained. And don't forget the V-Mail service, which is entirely on a 16mm. basis, and means so much in quick communication between the men at the front—no matter how distant—and their folks at home. Only recently we received a V-Mail letter from a Marine cameraman in the South Pacific—not too far from Guadalcanal, we suspect—in less time than it would take a normal, peace-time letter to go by regular mail from New York to Hollywood.

IT seems to us that cinematographers throughout the industry should exert themselves to put a stop to what seems to us a very unjust policy. There appears a growing tendency to give screen credit for special photographic effects partly, and in some cases exclusively, to non-photographers. In some studios the credit is split between an art-director and a cinematographer; in others, there's a three-way split between a special-effects director, art-director and (only incidentally) cinematographer. And in at least one studio, the special-effects cinematographer is never mentioned at all.

Yet it is the man with the special-effects camera knowledge who really puts the scene on the screen. He could—as he has for many years in the past—carry on efficiently without the aid of either special-effects director or art-director. But they couldn't carry on without him—and the specialized knowledge and skill he has built up over a period of two or even three decades of intense specialization.

We're all for the principle of credit where credit is due—so why not follow it? There is a limit to the number of credits it is physically or economically possible to put on the screen: wouldn't it be fairest to give that credit to those who actually do the work?

A.S.C. on Parade



For lo, these many months **Capt. Ted McCord, A.S.C.**, of the Army Air Force, and Ye Ed have been most inadvertently dodging each other. You see, we wanted his pic for this page . . . sooo—we spent quite a few Saturday afternoons sitting here with loaded camera hoping for a chance to “mug” **Capt. Ted**—and missed him. He came up several times with similar intentions, only to find us elsewhere, grappling with printers, advertisers, and such. Finally, though, at the last A.S.C. meeting, about the middle of the third reel of “Desert Victory,” somebody handed us a very official-looking Air Force envelope with this handsome picture of **Capt. McCord** in it. Looks as though both of us won out on the deal, for this portrait by an uncredited Air Force photog is probably a lot better than we’d have done ourself!

Our sympathies to Past-Prexy **John Arnold, A.S.C.**, bedded with a very bad case of flu, verging closer toward pneumonia than any of us like to see.

And the latest bedside report from **Ray June, A.S.C.**, is encouraging: while still in the hospital, he’s improving, and allowed to have visitors occasionally.

By the way, did you hear the moniker our recent Russian gusts pinned on **Fred Jackman**?—He provd such a nice host they called him the Russian version of “Comrade Santa Claus”—but at first he thought it meant something to drink, for it was **Tovarich Jackacola**!

Add things we didn’t know about A.S.C. members—**Eddie Cronjager, A.S.C.**, is quite the piano virtuoso (classical variety). Now with **Eddie’s** piano, **George Barnes’** fiddle, and **Sid Wagner’s** very hot sax, we ought to have the makings

of a pretty good A.S.C. orchestra! Anybody play the drums—?

During the last several weeks a lot of folks have been asking us about that ad **Karl Freund, A.S.C.**, had in the March issue, congratulating **Arthur Edeson, A.S.C.** and **Mike Curtiz** for their joint achievement in “Casablanca.” Our answer is that it’s the real McCoy—conceived in **Karl’s** brain, and paid for (cash!) out of his pocket. We think it’s a mighty fine gesture . . . and one worth emulating when you see a fellow cinematographer come up with a similarly swell piece of work.

Miracles *do* happen—that perennially busy man, **Byron Haskin, A.S.C.**, after directing we-can’t-tell-you-how-much of “Action In the North Atlantic,” and performing endless special-effects chores on “Air Force,” “Mark Twain,” and the other Warner biggies, actually managed to get himself a whole week’s vacation! Went up to visit relatives in ’Frisco, so we hear.



Congratulations to the A.S.C.’s newest bridegroom—**Master Sergeant Peverell Marley, A.S.C., U.S.A.A.F.**, and his bride, the lovely **Linda Darnell**, who did a surprise elopement to Las Vegas a few days ago for the knot-tying. Pev, you know, shot **Linda’s** first test when she arrived in Hollywood, and then her first picture . . . thereby starting a friendship that grew naturally to mean much more as two swell people really got to know each other. The only thing we can’t understand about the whole affair is where, in these rationed days, did they get the gas to drive that round-trip to Las Vegas—?

Wonder if this is the first “second-generation A.S.C.” romance—? We’ve just learned that 1st. Lieut. **David P. Boyle**, son of **John W. Boyle, A.S.C.**, home on leave from duties with the Signal Corps, has just popped the question to **Miss Betty Jane Huse**, daughter of **Emery Huse, A.S.C.**

The sincerest sympathies of the entire A.S.C. go out to **Faxon Dean, A.S.C.**, on the recent death of his wife.

Everybody patting **Johnny Boyle, A.S.C.**, on the back for providing the projectors and operating ’em at the last meeting when “Desert Victory” was shown . . . If they’d seen the amount of time (and sweat!) he put in beforehand overhauling them to make sure they’d be in perfect condition for the meeting, they’d give him a medal!

And did you know that **Sol Polito, A.S.C.**, was the one who provided that big “tarp” with which to black out the sky-light over the A.S.C. lounge? Thanks, **Sol**, from all of us!

GEORGE BLAISDELL

It is with profound regret that we report the death, on April 20th, of **George Blaisdell**, former editor of **THE AMERICAN CINEMATOPHIL**, and a pioneer in motion picture journalism. A journalist and printer for more than fifty of his nearly 80 very active years, he was credited with writing the first review of a motion picture in a “legitimate” newspaper when on the staff of the New York “Sun” more than thirty years ago. Since that time he served for many years as editor of the “Motion Picture World,” the “International Photographer,” and **THE AMERICAN CINEMATOPHIL**, as well as on the staffs of such publications as “The Billboard,” “The Hollywood Reporter,” “Variety,” and many others. In ill health since he was stricken by a paralytic stroke last November, he had been recovering to the extent that we hoped soon to have some articles in his inimitable style in future issues of this magazine.

George Blaisdell will be missed by a remarkably wide circle of friends—not only those who knew him personally, but those, too, who knew him only by correspondence, or by what he made out of the magazines placed in his charge. His was a unique character: a man of very positive opinions, and unshakable loyalty to his friends and to his concept of what was right, he was, as one friend expressed it, all pepper-and-salt on the outside, and beneath it, the finest of gentlemen and friends to those who got to know him well. As a friend and fellow-worker he knew no peer.

Above all, he was a man who loved life and who, during nearly four-score years, lived it to the full. The sincere sympathies not only of the A.S.C. and this editor, but, we are sure, of the world-wide circle of readers of this magazine go out to **Mrs. Blaisdell**, and to his grandsons and great-grandchildren.

PHOTOGRAPHY OF THE MONTH

DESERT VICTORY

Released through Twentieth Century-Fox.

Photographed by The Officers and Men of the British Army Film and Photo Unit, and the R.A.F. Film Production Unit.

If there are such things as Academy Awards next year, our sincere advice to the Academy awardees would be to take all of the "Oscars"—especially those for the best production, best direction, cinematography, script-writing, film-editing, scoring, etc.—and melt them down into one man-sized statuette to be presented to the makers of "Desert Victory." Then they could forget the banquet, and put the twenty or thirty-odd thousand dollars these annual fests cost into War Bonds!

For "Desert Victory" is by long odds the picture of the year. It is indisputably the greatest film yet to come out of World War II, not only as cine-reportage, but as an example of thorough-going film craftsmanship in every department.

Yet "Desert Victory" is no piece of staged film entertainment. It is the actual, documentary story of the British 8th Army's drive across North Africa, which first dislodged Rommel from his strong point at El Alamein in Egypt, and then chased him nearly 1400 miles across the desert to Tripoli and into Tunisia. It was filmed at the front by a combat camera detachment of 26 enlisted photographers and six officers of the British Army Film and Photo Unit, with aerial camerawork by members of the R.A.F.'s Film Production Unit. During the making of the picture these uncredited but heroic camera-crews kept so consistently with the front-line fighting that the majority of the time they were nearer to the Germans than to their own forces. Their losses counted four killed, seven wounded, and six taken prisoner. But they brought back over 200,000 feet of negative, together with a good bit of very useful footage captured from German combat-camera-men.

From this, "Desert Victory" has been edited. In its final release length of 5400 feet, there are but 179 feet of staged scenes—night-effects, which could not be obtained under actual conditions.

Photographically, the picture is remarkably good when one considers the conditions under which it was made. Here and there the contrasty desert lighting conditions make the scenes go too contrasty, and at other times the combination of flat subject, flat lighting and the dust and smoke of battle make some scenes too flat; but a very surprising lot of the picture is almost as good, photographically, as could be expected of a studio production's location scenes.

The night-effects at the start of

the bombardment at El Alamein are enormously effective photographically—filmed entirely by the almost continuous flashes from the mouths of Montgomery's artillery as it laid down a murderous barrage on the German lines.

The cutting and scoring of this sequence especially are of incredibly fine calibre, bringing to mind some of the sharply dramatic cutting of Eisenstein and some of the early Russians. This sequence, in fact, relies really much more upon brilliant, silent-picture editing for its impact than upon conventional sound-film technique.

The construction of the film should long serve as a model for future war-reporting pictures. There is no sentimentalizing; there are no phoney dramatics or flag-waving; but there is told—for the first time, I believe—the complete story of the planning of a major offensive, its execution and victorious culmination. Due footage is allotted to the problems of supply and transport; of replacements of personnel and equipment; of physically toughening the men themselves, from General Officers down to privates. Then the story gives a clear explanation of the commanders' plans of strategy, and follows with nearly an hour of thrilling action scenes which show how those plans were carried out by all arms—tanks, artillery, air forces, and infantry. And this coverage, when it is realized it was accomplished by a relatively small group of men dashing hither and thither on Jeeps, with only Eyemo and DeVry hand-cameras, is supremely good.

"Desert Victory" will unquestionably go down as the really great picture of this war—and as such we can only urge you to see it—and see it again and again.

CHINA

Paramount Production.

Director of Photography: Lt. Leo Tover, A.S.C.

Process Photography: Farciot Edouart, A.S.C.

Special-effects: Gordon Jennings, A.S.C.

This was the last production filmed by Leo Tover, A.S.C., before taking his present position as a Signal Corps cinematographer. It is decidedly one of his best, too. Essentially one of the virile wartime action-dramas in which director John Farrow has lately specialized, "China" offers more to the cameraman than any of its predecessors. As a great deal of the picture is played in night-effects, cinematographer Tover manages to get a great deal of mood and pictorial effectiveness into his work, without in the least lessening the dramatic "guts" of the story—in fact, rather heightening them. His treatment of the players is, of course, characteristically excellent, as well.

The process and special-effects work by Farciot Edouart, A.S.C., and Gordon

Jennings, A.S.C., is fully up to the high standards expected of these men and their capable staffs.

TONIGHT WE RAID CALAIS

20th Century-Fox Production.

Director of Photography: Lucien Ballard, A.S.C.

While probably ranking as a program effort, this picture is an almost flawless example of melodramatic photography. In addition, it packs more of a dramatic wallop than many an "A" we could mention.

Lucien Ballard has done one of those jobs of camerawork that ought to be studied and re-studied for its perfection. With the exception of perhaps two scenes—which might, at that, be improved in printing—his lighting, composition and general treatment were so perfectly in balance, and so well-attuned to the mood of the action, as to be exemplary.

AT THE FRONT IN NORTH AFRICA

Warner Bros. Release (Technicolor, from 16mm. Kodachrome).

Filmed by uncredited Photographers of the U. S. Army.

This little four-reeler—the second of the battle films our Services have publicly released—is rather disappointing, especially when compared to "Desert Victory." We've heard a good many conflicting stories as to why this is: some blame those who supervised its making; others hint their hands were tied by red tape and politics. But the picture as it stands serves at any rate to show rather impartially both the good and bad points of 16mm. for combat-camera use. Where the man at the camera was good, so are the enlarged-to-Technicolor results; where the man behind the camera was not adequately trained photographically, the result is such as even a third-rate amateur would blush to show. All of which leads to the inescapable conclusion that for combat camerawork 16mm. Kodachrome is all right (or better) provided it is placed in the hands of men who know their business. And for some of the rest of those connected with this picture, we'd like to quote an admonition given in one of the Signal Corps training classes: "Don't pan—or you'll be back in the infantry!"

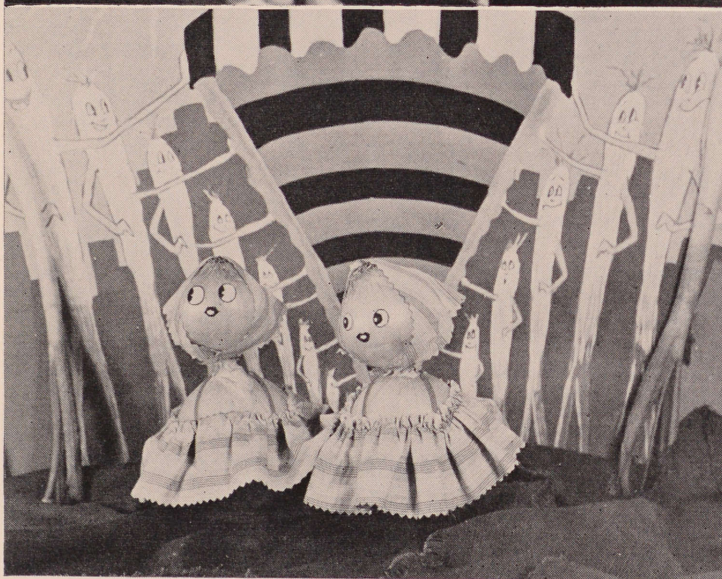
AERIAL GUNNER

Pine-Thomas Production; Paramount Release.

Director of Photography: Fred H. Jackman, Jr., A.S.C.

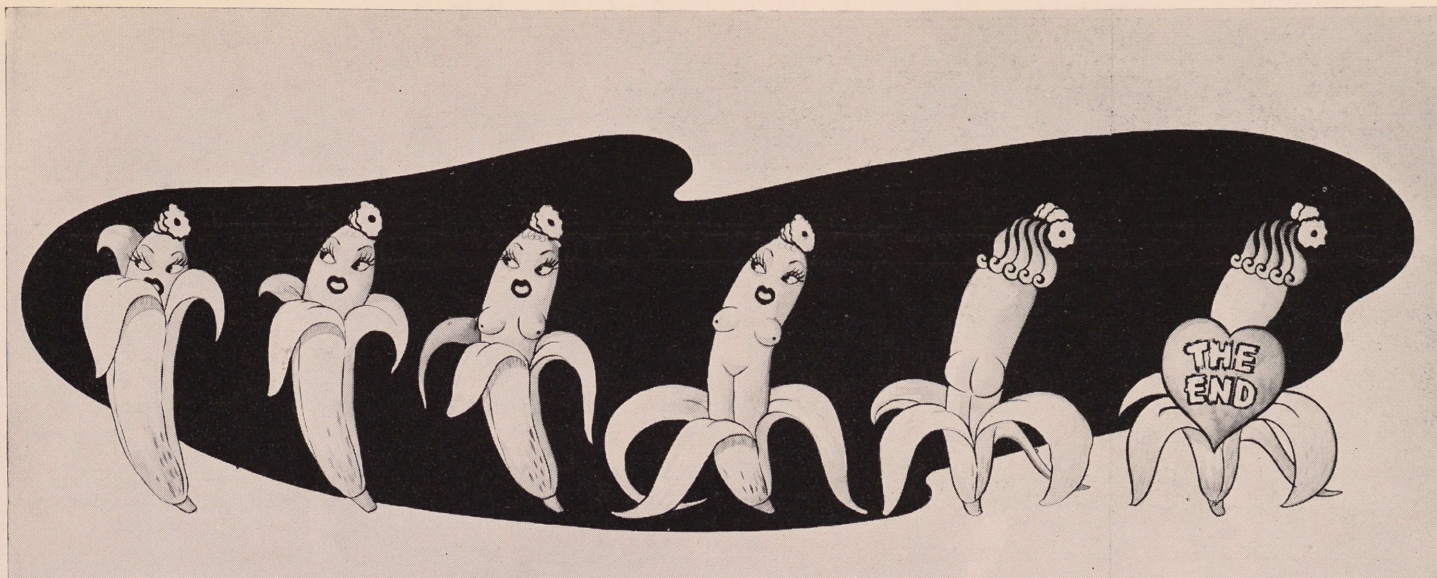
This picture might be described as the poor man's "Air Force," the chief difference between the two being about \$1,930,000 in budget and six or eight months in shooting time. In addition, director of photography Jackman handled all of the photographic work on the picture—not only the "production"

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AND THEN YOU CAN EAT THEM—! Scenes from Carl Anderson's "Vegetable Follies." Top, left: Senor Cucumber wears a Scotch tape zerape and his donkey is made of corn-husks; miniature cacti and a folded bath-towel form the background. Right: Carrot Ballerinas' faces painted in poster-paint, crepe-paper skirts. The chorines are attached to a paper-covered lath, hinged in the middle. The prima ballerina is animated by means of a plastic knitting-needle concealed in her head-dress. Middle, left: "Bubbles Banana," strip-teaser; face

painted on peeled surface, hair made of red embroidery cotton with small paper flowers . . . costume—well, you guess! Right: "Carmen Miranda" . . . otherwise a turnip with painted eyes and mouth, head-dress of beads, feathers and turnip tops. Bottom, left: The Onion Sisters—four onions, two large and two small, with skirts and kerchiefs of cotton percale. Right: the group at work filming the red-cabbage "Arabian Night."



TAKE IT OFF! Hold banana in place with a long nail, and animate skin down by single-frame animation. Then animate turning away from camera—place on curves—animate back to position and continue stripping. Finally animate turning away, and dissolve in red heart end-title.

Vege-table-Top Follies

By CHARLOTTE ANDERSON

IDEAS are never rationed, and that is a happy thing. Gasoline is, so travelogues are "out" for the duration. Film is scarce, so it is necessary for film fans to confine their activities to smaller areas and less film-footage. In view of the situation, we decided to film a table-top short, and concluded that vegetables would provide attractive and original models for an amusing "Follies" motif.

When four congenial cinematographers with some talent for wielding paint brushes, and creative tendencies toward presenting table-top entertainment, get together, the fun really begins. We devoted some thought and planning to our project ahead of time, and an entire week-end to shooting. Essential ingredients were: Four enthusiastic 16mm. fans armed with scissors, poster-paint, brushes, assorted vegetables, wire, and gay bits of cloth; 6 No. 2 Photofloods; and an unlimited number of ideas for lighting, staging, and gags.

While our husbands concentrated on the camera detail and the construction of background set-ups, we girls dressed and decorated our cast. First, however, we wrote a short scenario or outline for our Follies idea, and "took off" a few well known entertainers in vegetable form to intersperse with characters of our own devising. The opening shot was of Carmen Miranda, whose intriguing smile was recorded on the smooth skin of a large turnip, and using the natural foliage around which to build the well-known turban, we cut loose with plenty of imagination and decoration as she revolved before a lavishly-designed background done in South American trend.

We have a painter in the crowd, who

dashes off finished titles and smart backgrounds, all of which adds up to a snappy effect. The titles, incidentally, were lettered on black backgrounds, and were animated on and off in 2-frame wipes, then the desired footage was run through the camera, and the backgrounds reshot for the following scene. Such title word phrase as *The Carrot Ballerinas*, *Señor Cucumber's Donkey Serenade*, and *Bubbles Banana, Strip Tease Artist, Takes Off*, furnished us with inspiration for various characterizations.

For a bit of action south of the border, we used Señor Cucumber to render his "Donkey Serenade." The props in this scene were a corn-husk donkey, a grass hut, some miniature cacti, and our hero wearing a diminutive straw sombrero and tiny zerape. We lacked something to use as a foreground on which to place our scene, so a fluffy dusty-pink bath-towel was laid in realistic slopes and bumps under the actors, providing a stunning contrast to the turquoise background. This is the "utilizing what you have" policy. We seldom use anything outside our own household gadgets for props.

After working for awhile with our vegetable models, they seemed so real that we addressed them as "he", "she", "Carmen" or "Bubbles" without the slightest embarrassment, for after all they were celebrities and entitled to the consideration such highly-paid entertainers usually rate. All of the faces were applied to the vegetables with show-card colors, and we managed some amusing characteristics and expressions. We have wondered ever since if the cast really got along, as they were fairly well behaved while we were shooting,

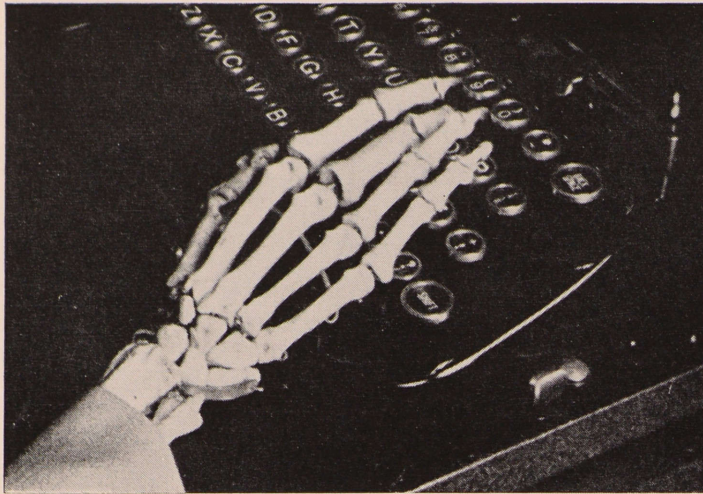
except for a few fragile ones who would lose their heads!

It is only fair to mention the lift a musical accompaniment gives to this type of production. We chose to open with one of Carmen Miranda's latest, as she introduces the program. We gave the *Carrot Ballerinas* the "Faust" *Ballet Music* and trust they were satisfied. The strip-teaser teased to the "Strip Tease Polka," and other scenes were accompanied by charming incidental music, the whole proving twice as effective as it would have without appropriate melodies to help the moods along.

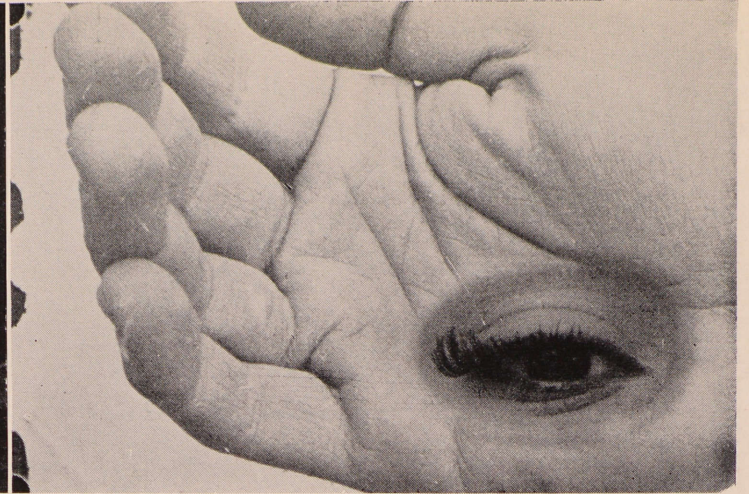
In order to introduce our full cast, we double-exposed a title "The Ensemble on Parade". Some of our little vegetable people were mounted on a block of wood and pulled one or two at a time through a miniature set to full camera field. The cast included *The Onion Twins*, two shy little maids with sizeable, plump onions for bodies and smaller ones for heads, gowned in ruffled blue skirts and kerchiefs, created by the seamstress of our quartette. Three coy lemon pigs with match-stick legs, paper ears, painted eyes and wire tails added a comedy note to the crowd. A demure artichoke couple also made a brief appearance, with various other fanciful characters suggested by the material at hand, all of which was found in local Victory Gardens, around the house, and in dime stores.

Our next sequence was really fun. We decided on a ballet number, using a graceful array of carrot ballerinas, which we garbed in yellow crepe paper skirts. The premiere danseuse wore a white and chartreuse ruffled effect. The chorus was literally nailed one at a time to a long lath hinged in the center, so that they might be permitted to do a V formation, forward and back, manipulated by two of us, holding the ends of the lath outside camera-range. The soloist pirouetted and toe-danced in front of the ensemble, suspended by

(Continued on Page 198)



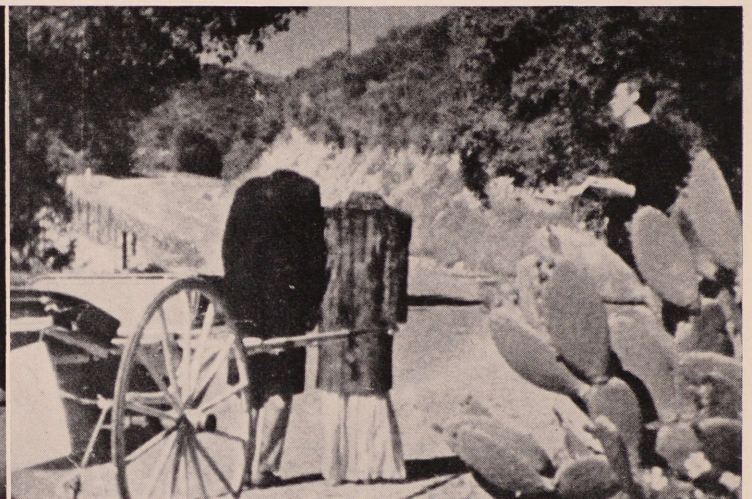
WORKING HER FINGERS TO THE BONE



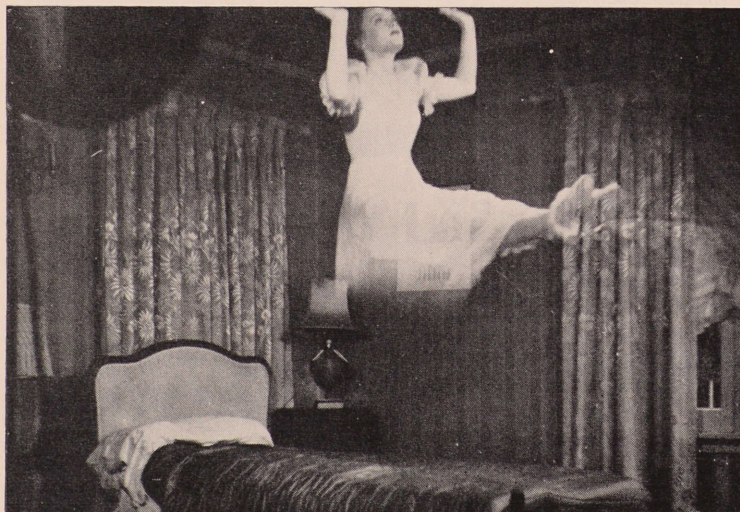
SHE GAVE HIM THE EYE



THEY LOST THEIR HEADS



—THEY WERE HITCHED

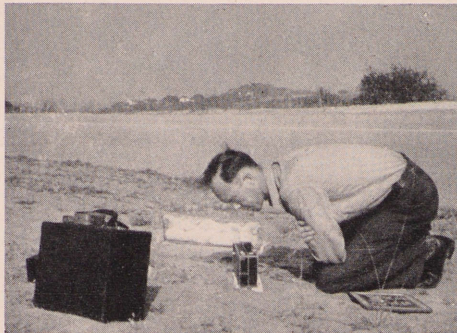
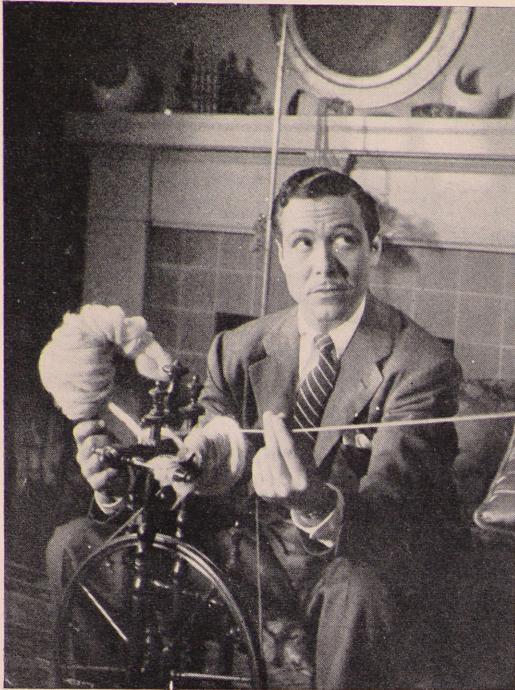


SHE HIT THE CEILING



HE WAS A HOUND

GUESS WHAT slang phrases these frame-enlargements from Robert Fels' "Cine Whimsy" illustrate—without turning the magazine upside-down to see! Just to give you a hint, the one at the left on opposite page is "He spun her a yarn," and the center top one is "They were walking on air." Below, Newell Tune filming the latter shot; right, Robert Fels.



PUTTING SLANG ON THE SCREEN

By WALTER BLANCHARD

"CINE WHIMSY" is an unusual picture in several respects. It is unusual to have so many trick and double-exposure shots in a 16mm. film. It is also unusual to obtain perfect lip-synchronization in a film shot silent and recorded after editing.

Even the idea behind the story is unusual. A great number of figures of speech or colloquialisms were assembled in logical sequence so as to tell a regular story, but these expressions were portrayed literally, just as a foreigner studying the American language might do if he only knew the dictionary meaning of the individual words and was not yet acquainted with the meaning of these slang expressions. If the expression used was "He got hot under the collar," you would actually see clouds of smoke coming out of the actor's neck in the picture. As this scene would take only a moment, you can imagine how unexpected the action becomes with a hundred of such expressions.

The contrast between the accepted meaning of the colloquialism and the literal meaning, as shown on the screen, is surprising, often comical, and frequently fantastic. To a certain extent the picture is a guessing game; for the audience is challenged to guess the meaning of the figure of speech from its

presentation on the screen. It is a novelty to ask audience participation in a film which is at the same time offered as visual entertainment. It is amazing to see how well the audiences enter into the spirit of the game.

"There is no need to be told that 'Ciné Whimsy' was made by a Frenchman. One can feel the French touch in it right away." This was told after the preview to Robert Fels, who conceived the original idea and directed the picture. But looking backwards, Fels feels that it was particularly difficult for a Frenchman who had been here only a few years to understand the precise meaning of our American expressions. So an American friend, Alice Taylor, translated both the accepted and the literal meanings of hundreds of colloquialisms.

At this point two amateur movie-makers joined them. Newell Tune, of the Los Angeles Cinema Club, was the cameraman who took care of all the technical problems—trick-shots, special-effects, lighting, etc. Norman Johnson collaborated on the shooting script, and he is to be credited with the dialogue. All the actors are amateurs. They do so well, under Fels' direction, that we would never think that they had never played in a motion picture before. Audiences have especially praised the two

leads: Andrée Rayburn as the girl, and Stephen Brantley as the young man, both of whom seem to have professional screen possibilities.

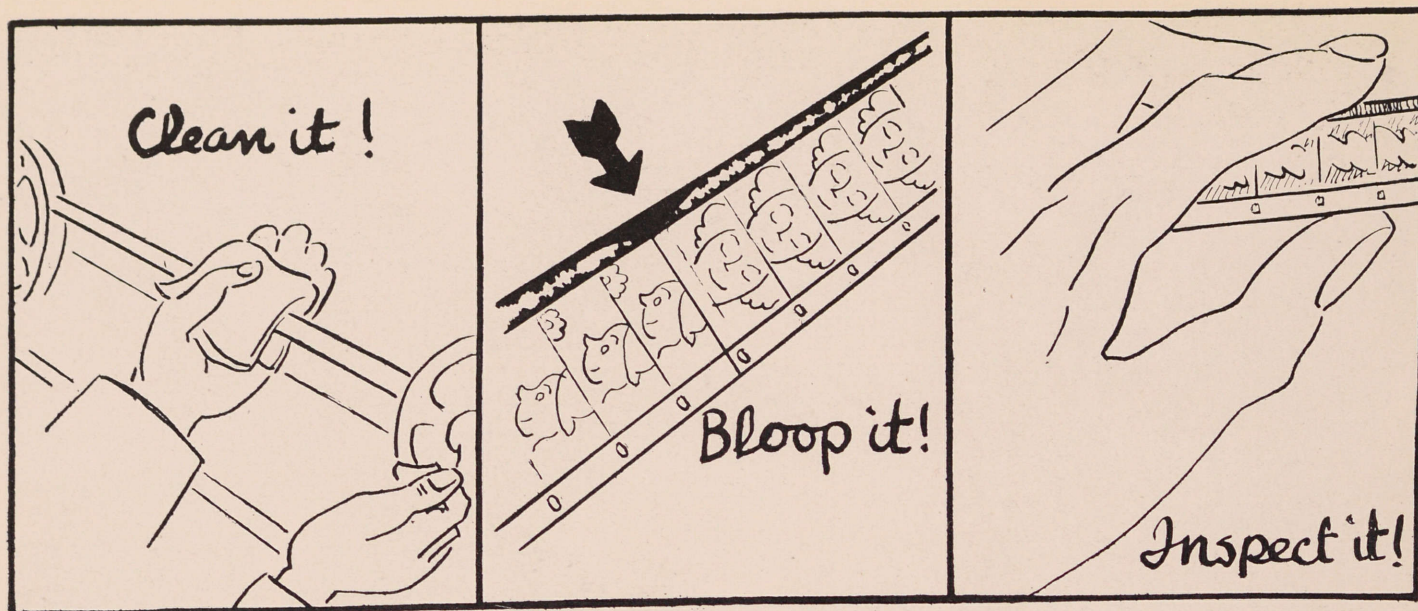
Many of the trick-shots used in this picture would not be so difficult to do with a 35mm. camera, but may be considered an accomplishment in 16mm. For instance, a camera moves toward a bundle of magazines which was just thrown from a passing truck. In the close-up a pair of hands cut the rope and we see a TIME Magazine with a picture of a stenographer at her typewriter. The camera travels closer and stops at an extreme close-up. Then the still picture comes to life and the girl begins to type.

This was accomplished by taking a still picture from the same tripod position as the movie camera and later enlarging a still to fit the beginning action. The enlargement was glued on the front of the Time Magazine which was mounted upside-down on top of several other magazines on a traveling title-board.

The camera was started with the extreme close-up, which was checked in the reflex view finder to coincide with the enlargement of the beginning of the action in the scene following. During the exposure the camera was moved back until the medium-shot was reached. When the film was returned from developing it was turned end-for-end, making the action reversed and, also, the magazine turned right-side-up. This made a transition almost as smooth as you find in 35mm.

As the script called for several dolly-shots (some even made on a sandy beach), a three-rail dolly-track that can be put together or dismantled in three minutes was made out of 1x3's and bolts and wing-nuts. The center rail

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How To Care For 16mm. Sound-Films

By D. LISLE CONWAY

President, Syracuse Movie Makers Association

THE past few years have seen an enormous increase in the use of 16mm. sound-films and projectors. They are being used for visual education purposes not only by schools and health associations, but by our War Industries, and by every branch of our Armed Services. In addition, a constantly increasing number of civilian amateurs are using 16mm. sound-films in various projects for bringing film entertainment to our troops, through YMCA, USO and similar organizations and in putting on volunteer shows for men at isolated searchlight and anti-aircraft gun posts, and in similar spots too small or too out-of-the-way to be reached by the usual "organized" camp shows.

As a result, more and more of the workers in these fields are being faced with the problem of taking 16mm. sound-films and equipment to outside meetings for film showings, with little or no experience in the care and operation of this type of equipment.

In the past, if film was damaged through accidental misuse, or the equipment broke down, it could be replaced easily enough. Today, however, because of the war, much of this equipment cannot be replaced. Now the films, projection-lamps, amplifier tubes, photocells, and projectors themselves, must be made to last as long as possible with the least

possible wear. Many of the tubes used in sound-projector amplifiers are no longer made; others are obtainable only on a priority basis. Projection lamps are being rationed, and in some places the old ones must be turned in for the new ones; all new sound projectors are going to the Armed Services; electric cables cannot be purchased; and many other things which we have taken for granted could be easily replaced—cannot now be had at any price.

For these reasons, this article will concern itself mainly with the conservation and protection of the equipment and material we now have in our possession, or still may be able to obtain. In addition to this, hints on good projection practice will be given later.

To your audience, the most important thing is the picture on the screen and the intelligibility of its sound. Dirty, scratched pictures, hissy, uneven sound, not only detract from the appearance of the show itself, but in many cases result in the message that the film tells being entirely lost through distraction of the audience's attention. Therefore the condition, storage, and handling of the films you show are of paramount importance.

The rules to follow in helping to preserve your films are very simple, but nevertheless very important. Remember, once the film is badly damaged through careless handling or scratching, it cannot be repaired!

Keep your films clean! Grease, oil, dust, and dirt are deadly enemies of motion picture film. Oil is sometimes spattered on the film by the projector, grease may have been gotten on the film from fingerprints. These result in blobs of off-tone grey on black-and-white film, and a change of color on Kodachrome or any other color film.

This grease and oil, unless removed, will serve as catchers and collectors of dust and dirt from the atmosphere and, in turn, result in scratched films. The dust and dirt so gotten on the film collect in the picture and sound gates of the projector, and unless removed before each projection will scratch whole sections of film, leaving long white streaks which can never be removed. The picture area on the screen is likely to be fringed with a sort of moss effect and will look like grass growing from the top and bottom of the picture. The sound will grow weaker in volume and, when the sound track of the film has been scratched, will result in crackling, hissy, unintelligible speech.

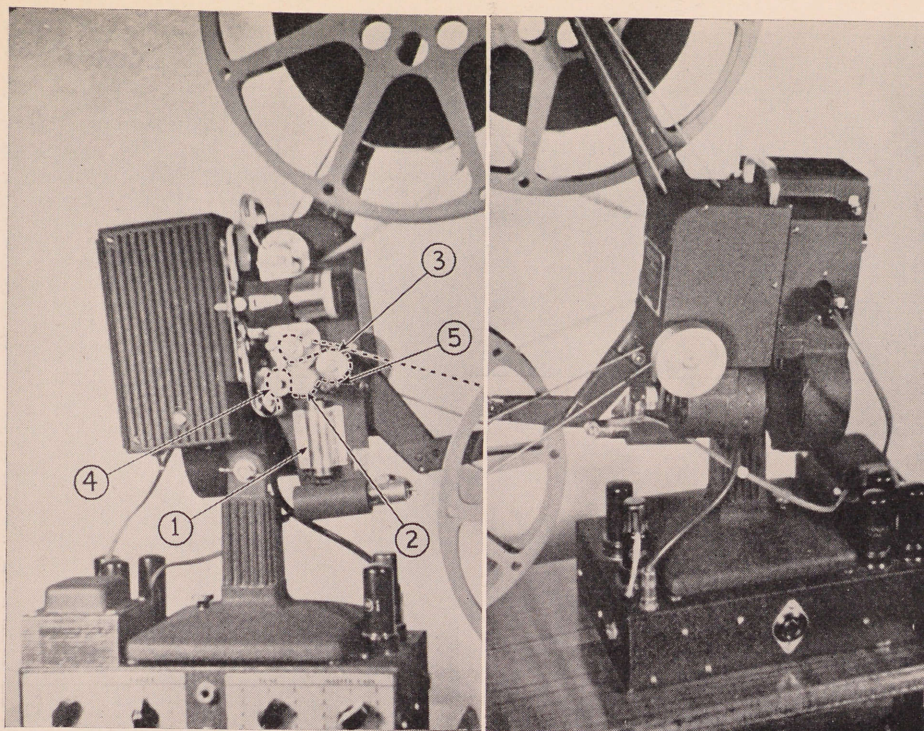
The solution of this is simple, periodic, film cleaning with an approved film cleaner, and the cleaning of the picture and sound gates *before each projection*. The latter will be dwelt on later.

There are many approved film cleaners on the market. Eastman's Film Cleaner, put out by the Eastman Kodak Co., is one. However, let me stress here that only *approved film cleaners* should be used! Ordinary household "spot removers" should never be used, as the cleaning agents and solvents in them are most often deadly enemies of motion picture film. This is especially true of cleaners containing alcohol or benzine, and the like, which will not only ruin the dyes in Kodachrome, but will attack the film base, as well.

The process of cleaning a film is very easy. With most cleaners comes a piece of lint-free, soft, plush cloth. This is moistened with a *small* amount of the cleaner and the film, as it is slowly

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From a lecture delivered at the Convention of New York State Tuberculosis Associations.



The author's Model "EE", as converted for sound. Left: 1, sound-lens; 2, sound pick-up; 3, stabilizing-drum; 4, roller to hold film against pick-up; 5, idler for tension against stabilizer. Dotted line indicates path of film through sound-head. Right: note flywheel, extended reel-arms and amplifier in base.

Putting Sound-On-Film On A 16mm. Silent Projector

By EARL W. ABBOTT,

Syracuse Movie Makers Association

WHAT serious-minded amateur in possession of a 16mm. projector has not wished at some time or other that he could run sound-film on his machine? I know I had always envied those opulent amateurs who owned sound machines. But envy them was all I could do, for the little item of expense stood in the way . . . unless maybe I could make my own.

In March, 1940, I purchased an Eastman EE series 2 Projector and the first time that I examined it closely I was struck by the ease with which this machine could be converted to sound-on-film. Being by profession a toolmaker, and having had some previous experience with sound, having worked on the old Fox-Case sound camera (now the Fox Movietone) all through the experimental stage until it was put into production, and also having built a sound-on-disc recorder, I decided maybe I could make my own sound conversion.

Well, to get back to the projector, I dragged it out one stormy night and with divers tools and instruments proceeded to design a sound-head I thought would do the job, and of course taking into consideration the fact that there is a separation of 24 frames between the picture and the sound.

First I obtained a plate of cold-rolled steel $\frac{3}{16} \times 3\frac{1}{2} \times 4\frac{1}{2}$ inches. I cut a semi-circle out of one end of this to fit around the boss on which the lower film sprocket is located.

My next step was to remove 1 inch of steel from the bottom at left and gradually flair it back to within $1\frac{3}{4}$ inches of the top of the plate. This will allow the machine to be tipped forward.

Next, starting at the bottom of the plate, I cut a 90-degree included angle slot extending upward for $2\frac{1}{2}$ inches, and located from the right hand side of the plate $1\frac{1}{16}$ inches to center of slot. This is to accommodate a Holmes Sound-lens. This is identified in the picture by No. 1 on photograph.

Next, $3\frac{1}{4}$ inches from the bottom of the plate to center, and directly in line with the slot, I bored a $\frac{3}{4}$ -inch hole to which I fitted a piece of drill-rod which was $\frac{3}{4}$ -inch round $\times 2\frac{1}{4}$ inches long, and bored out to accommodate a peanut-type baseless photoelectric cell. A slit was machined in the bottom end for the beam of light from the sound-lens to travel through, and this end was a press fit into $\frac{3}{4}$ -inch hole in the plate. This was then hardened and given a high polish. (No. 2.)

Next $\frac{3}{4}$ inches from the top of the plate and $\frac{3}{4}$ -inch from the right-hand side to center, I drilled and tapped a $\frac{3}{8}$ -inch 24-thread hole for the shaft-bearing of the film stabilizing drum. (No. 3.)

This shaft is of $\frac{7}{32}$ -inch drill-rod and is $4\frac{3}{8}$ inches long, with a 32 thread on each end. The bearing for this shaft is of $\frac{3}{8}$ -inch bronze and is $3\frac{1}{16}$ inches long. Both ends are threaded with a $\frac{3}{8}$ -inch 24-thread. When the plate is fastened to the projector the $\frac{3}{8}$ -inch 24-threaded hole is spotted through to the casting of the projector, and this hole is then drilled straight through the machine. At assembly, the bearing-shaft which had of course a $\frac{7}{32}$ -inch hole through it, and the inside of this hole was relieved with a small boring bar to within $\frac{3}{4}$ -inch of each end, was pushed through the hole in the projector and screwed into the hole in the plate, after which a knurled brass nut was screwed onto the rear of the shaft up tight against one back-plate.

I then made up the film stabilizing drum of brass, 1-inch in diameter at the large end which is a flange $\frac{1}{16}$ -inch thick, the body being $\frac{5}{8}$ -inch in diameter, and the hole being $\frac{1}{16}$ -inch thick. This was mounted on the front end of the shaft and the film stabilizing flywheel on the other end on the left side of the projector.

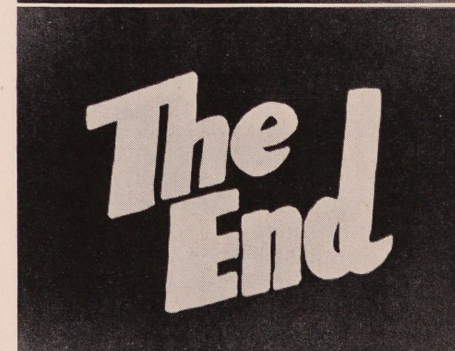
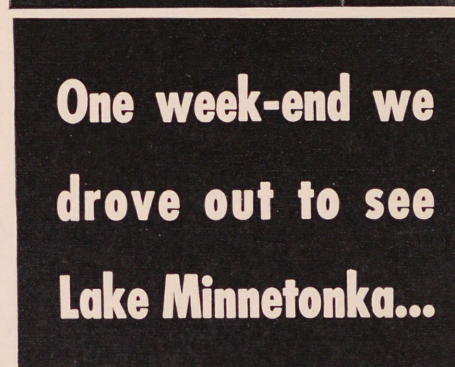
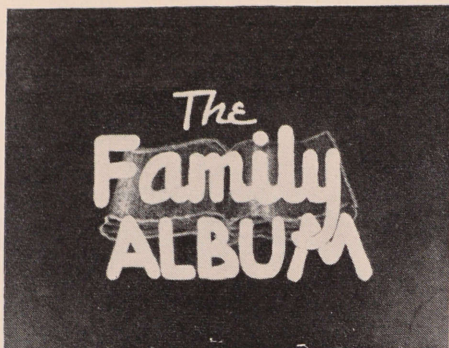
This flywheel was made of brass and is $2\frac{1}{4}$ inches in diameter and $\frac{3}{4}$ -inch thick. The machining of the stabilizing flywheel, film-drum and bearing must be done very accurately as the slightest wobble will be enough to ruin the sound in the finished machine.

The next step was to remove the bottom take-up sprocket and to replace it with a precision machined sprocket that can be purchased from several companies that specialize in replacement parts for 16mm. sound-on-film projectors. Nearly all 16mm. sprockets are standard.

After I removed the take-up sprocket, I tested the shaft with an indicator and found that it had a run-out of about .004-inch. I was able to straighten it with a brass hammer without removing it from the gear-box.

The old sprocket was then put on an arbor and the teeth turned off and a film roller made from it. This was mounted at the left-hand corner of the plate. I purchased from the local Kodak dealer a film shoe the same as those mounted against the top and bottom sprockets. This is mounted against the roller as if it were a sprocket. (No. 4.) This roller is mounted to the left and directly in line with one photocell housing, with $1\frac{1}{8}$ inch between centers. When all the parts are assembled they

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For main and end titles, decorative lettering with painted or photographic backgrounds are effective, but for subtitles (third from bottom), a simple lettering, preferably in black, is preferable. Style of type shown is Kabel Bold.

The How and Why of Titles

By JAMES R. OSWALD

PERHAPS one of the greatest faults of the average amateur movie is the absence of a pleasant blending of scenes or sequence arrangement. This continuity angle should always be taken into consideration at the time of filming, if it is at all possible to do so. Thus a natural relationship can be built up between successive shots, with soothing transitions joining the scenes. Even the simplest of home-movie cameras is capable of producing fades—a fact which is frequently overlooked. A fade-out, used at the conclusion of a sequence, is produced by gradually reducing the amount of light reaching the film. This is accomplished by merely rotating the lens-barrel, with the camera running, from the point of proper exposure to the closing point of the diaphragm, which is simply a “curtain” that regulates the intensity of light entering the camera. A fade-in introduces a new sequence and is made in exactly the reverse fashion . . . that is, the diaphragm is gradually opened from a closed position to the point of proper exposure for the particular subject being filmed.

But even though continuity has been shamefully neglected in filming, there is still much that can be done with present, completed films. Don't be like many enthusiasts, with a tendency to leave the reels in the exact sequence in which they were shot. Rearrangement of individual shots in a more logical order will make a world of difference. Occasionally this is not enough, however. If the scenes are totally unrelated, and yet too good to be left out, a more drastic means must be used to “bridge the gap.” In such a case it is a definite advantage to insert titles.

Titles are used for identifying time,

location, subject-matter, and a host of other things. They range from simple wordings on plain black backgrounds to be complicated multiple-exposures with motion picture backgrounds. Obviously, each type title has its place, but for our purpose we'll stick to two or three of the simpler types, which most amateurs are inclined to use.

Probably one of the most clever and least boring styles of title is one which is hardly recognized as such: the “natural” title. For example, a clock or calendar to denote time, a road-sign or section of a map to indicate location, a milestone to show distance travelled, etc. Such objects are easily photographed without any special title-making equipment, save possibly a close-up or portrait lens, and require no art-work whatsoever.

Next comes the regular printed or hand-lettered title. With these, the wording is either typewritten or printed on a card or even a snapshot, and photographed with one of the many title-making apparatuses on the market. If you are artistically inclined, there is no limit to the possibilities of this type of title. Those who do not feel ambitious enough to do their own work can take advantage of the numerous professionally made “stock” titles in both 8mm. and 16mm. sizes. Made-to-order titles from your own copy can also be had at a nominal cost.

If you are adept at developing and printing your own snapshots, there is no reason why you shouldn't find enjoyment in making and developing your titles. Short lengths of movie film can be handled in your own darkroom, the same as roll film. Low-cost, positive

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AMONG THE MOVIE CLUBS

Films to Show To Service-Men

An increasing number of amateur movie clubs all over the country are putting on movie shows for service-men — sometimes in big camps and metropolitan USO Centers, and sometimes individually, to small, isolated groups like barrage-balloon, searchlight and anti-aircraft gun squads whose duty prevents leaving their posts except at long intervals, and which are too small to be reached by the regularly organized entertainment services. These patriotic movie-makers are performing this very necessary service on their own time, using their own projectors, gas, tires and films—which latter they have often purchased with their own money.

The crux of the matter is film—film which the boys at these posts haven't seen too often already. Most of these volunteer 16mm. showmen have built libraries of entertainment 16mm. sound-films—but when, as is the case with one group we know, a club has an Army showing from three to six nights every week, at posts where the same men are stationed almost permanently, it doesn't take very long to have shown *all* the films available.

This problem would be a lot simpler if the various clubs and other organizations throughout the country could from time to time exchange their films, for what Long Beach has screened to the point of boredom might be new to Syracuse or Miami, and vice-versa.

Therefore we urge the people responsible for these showings to send us a list of the entertainment type 16mm. sound-films they have available. If a sufficient response is received, we will publish a directory of these films and the sources from which they are available in a forthcoming issue of this magazine. If the supply of films does not warrant publication, we will send copies of the complete listing to those who contributed. How about it—?

"Victory Vacation" For St. Louis

A timely feature of the April meeting of the Amateur Motion Picture Club of St. Louis was the screening of Member Rasmussen's 1942 vacation film, appropriately titled "Victory Vacation." This 400-ft. 16mm. Kodachrome picture was filmed entirely within a radius of 150 miles of St. Louis. Going a bit farther afield, new-member F. B. Guerin showed how well his much-envied Bolex 8 worked with a production entitled "Missouri

State Parks and Springs," an excellent travelogue of the Ozarks. As if to whet the members' appetites for post-war traveling, a 1200-ft. Kodachrome sound-film of the Rio Grande Valley in Texas was shown by courtesy of the Missouri Pacific Railroad.

A surprise feature was an unannounced screening of an unusual film from the library of THE AMERICAN CINEMATOGRAPHER, "Garden Life," by Eugene L. Ritzmann. This picture, in 16mm. Kodachrome, shows flowers actually growing (by means of stop-motion photography), and was greeted with a hearty round of applause from the members.

HOWARD B. PARSONS,
Vice-President.

Varied Show For L. A. Cinema

The April meeting of the Los Angeles Cinema Club featured an exchange showing of two top winners from the L. A. 8mm. Club's recent Annual Contest. These were "Those Were the Days," by John E. Walter (See AMERICAN CINEMATOGRAPHER, January, 1943, P. 18), and "Two Weeks' Rest," by Bill Wade. Specially shown also were "Wonder Film," an unusual picture on and about 8mm. by the ever-original Joe Hollywood, of New York's Metropolitan and 8mm. Clubs, and "Vegetable Follies," a unique short (200 ft. 16mm. Kodachrome) by Carl Anderson, both loaned through the courtesy of the Editor of THE AMERICAN CINEMATOGRAPHER.

EARLE MEMORY, President.

Lighting For Tri-City

The April meeting of the Tri-City Cinema Club of Rock Island and Moline, Ills., and Davenport, Ia., featured a talk on "Indoor Lighting for Your Home Movies" by Orrin Stribley. On the screen were two films by Dr. Dunn, "Sauk and Fox Indians," and "William Tell—the Dramatization of a Struggle for Liberty." This "program piece" consisted of two decidedly unrelated shorter subjects in 16mm. Kodachrome, mounted together on an 800-ft. reel and presented with a sound background from records. Two of the latest OWI 16mm. sound-films, "Conquer by the Clock" and "Paratroops" were shown through the courtesy of Harry Lytle.

WILLIS F. LATHROP,
Secretary-Treasurer.

Synchro-Sound For 8-16

Program for the April meeting of the 8-16 Movie Club of Philadelphia included a demonstration of the Synchro-Sound device for keeping disc records in perfect sync with their pictures. Len Bauer, who conducted the meeting, has had considerable experience with this mechanism, having used it to excellent advantage in the picture with which he gained First Prize in the recent Gold Cup Contest. As

On Its Way

Those who might have suspected that actress Carole Landis' offer of her own new 16mm. sound-projector for use entertaining troops overseas, as published in last month's issue of this magazine was strictly publicity may be interested to know that Miss Landis' projector has been presented to the 6th Armored Division of the U. S. Army, and is on its way to where both the projector and the men it will entertain will do the most good.—Ed.

a practical, "how-it-works" example, Bauer's demonstration featured the actual making of a sound record to accompany a projected 8mm. film. The second portion of his demonstration consisted of a demonstration of interesting new Kodachrome title-making ideas. On the screen were shown "Solar Pelexus" and "Moods of Nature," from the library of THE AMERICAN CINEMATOGRAPHER.

Plans are being made for an inter-club movie-making contest. As the plans stand now, a story-idea will be chosen jointly by the various clubs. Each group will then work out its own scenario from that basic idea, and film it, with a suitable trophy going to the winning club. All movie clubs on the 8-16 Club's mailing-list are invited to participate. They, or any others interested, may write Secretary John Henrick, 2819 N. Warnock St., Philadelphia, for fuller information.

FRANK HEININGER.

Long Beach Exchanges

At the April 7th meeting of the Long Beach (Cal.) Cinema Club, a delegation from the Los Angeles 8mm. Club came down to present the three top winners in their annual contest—an exchange of courtesies repaying a visit by the Long Beach group at the 8mm. Club's March meeting, with the three top 8mm. winners in the L.B.C.C. contest. The films shown by the L. A. 8's were "Those Were the Days," by John E. Walter; "Jungle Parade," by President Fred Evans, and "Two Weeks' Rest," by C. Wm. Wade. Also shown were "Sun Valley," 100-ft. 16mm. Kodachrome by L.B.C.C.-er Herbert Goodall; "Grape Production," 800-ft. 16mm. Kodachrome, by Alfred Lion, of Fresno, showing the workings of the grape and raisin industry; "Wonder Film," by Joseph F. Hollywood of New York's Metropolitan and 8mm. Clubs, and a production sent by the Omaha, Nebraska, Amateur Movie Club.

LORIN SMITH, Secretary.

Lens Lecture In Indianapolis

The April meeting of the Indianapolis Amateur Movie Club featured a very enlightening discussion of testing projection lenses, accompanied by a well-planned lecture by member G. A. Del

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Valle. He also explained and demonstrated the difference between coated and uncoated lenses. On the screen he showed two direct-16mm. single-system sound-films he had made: one showing his son Billie's second birthday party, and the other, a reel of the Club's recent Annual Banquet, shown with a running commentary from the sound-track.

The staff for the Club's 1943 production has been picked, and includes: Director, E. M. Culbertson; Assistant Director, Roger Sneden; 16mm. camera-crew, Dr. W. E. Gabe, assisted by Al Kaufmann; 8mm. camera-crew, Roger Sneden, assisted by C. Wetzel; Lighting, Paul Bradley, Carl Luethge, Oscar Peters; Properties, Bill Locey, W. Worl, Jim Makin, Dr. H. Collins and Dean Smith; Script-girl, Mary Culbertson; Editing, Members Culbertson, Sneden, Thomas and Gabe; Casting, Members Collins, Reynolds and Vic Maier. The production is tentatively titled "You Can't Win," and is scheduled to run 400 feet of 16mm. Kodochrome when finished.

ELMER M. CULBERTSON,
Corresponding Secretary.

Philly Starts 8th Year

The April meeting of the Philadelphia Cinema Club started that club's eighth year of movie-making activity. Following the election of officers, the results of which were announced last month, the new administration announced three new committee chairmen, as follows: Program, Adolph Pemsel; Technical, Dr. Robert E. Haentze, and Membership, Herbert E. Moore. The evening's screen program included a number of members' films, and an excellent instructional picture from the Harmon Foundation, entitled "Your Camera." This latter was followed by talks from several of the more advanced members on the subject of camera equipment.

On April 19th, the Club was scheduled to visit the Norristown Club and present the evening's program, as a part of the inter-club activities which have been arranged among the several cine clubs in the Philadelphia area for the coming year.

FRANCIS M. HIRST.

Photography of the Month

(Continued from Page 175)

camerawork, but the aerial scenes and special-effects and miniatures as well.

Judged in that light, he has done an exceptional job on this picture. The aerial camerawork—done in only two shooting days—ranks with the best; his "production" camerawork is as good as can be expected when he was given a ten-day schedule and sets that consisted almost entirely of flats and backings. His special-effects work is decidedly good. His treatment of the players is adequate, though not the best we've seen him do, and his handling of the few scenes where he had anything like

photogenic sets or locations to work with indicate this young cinematographer is rapidly approaching the time when he will be ready for a better 'break' on a bigger production.

SPITFIRE

Goldwyn-RKO Release.

Director of Photography: Jack Hildyard, A.C.T.

This story of the development of England's most famous fighting plane, the Spitfire, is well worth seeing, not only dramatically but photographically. For years we have come to expect from European cinematographers brilliant work on individual scenes, but a definite lack of uniformity from scene to scene and sequence to sequence throughout the production. "Spitfire" is the first British film we've seen that cannot be subject to that criticism, and it marks Jack Hildyard as decidedly the coming star of British cinematography. His work, as shown here, would be "A-picture" photography in Hollywood or anywhere else.

PILOT NO. 5

Metro-Goldwyn-Mayer Production.

Director of Photography: Lt. Paul Vogel, A. S. C.

This is one of those typically-MGM jobs of camerawork that are so smoothly and effortlessly done that they're likely to slip by unnoticed. As one of the last pictures Paul Vogel, A.S.C., made before his enlistment as a Signal Corps cinematographer, it deserves more credit than that, for it is excellent in every department. Vogel had a difficult assignment in this, too, for as the story is told in cut-back form, beginning with a small group of fighting Americans and Dutch in those last, tragic days in Java, and cutting back ten or fifteen years to relate the story of "Pilot No. 5," the picture has to coordinate a decidedly wide variety of moods and photographic treatment. Vogel does this so excellently you're scarcely conscious of the photographic difficulties involved. At the climax, miniature-expert Don Jahraus and some uncredited special-effects cinematographers provide some more unusually fine marine battle miniatures.

THEY CAME TO BLOW UP AMERICA

20th Century-Fox Production.

Director of Photography: Lucien Andriot, A.S.C.

A story like this of espionage and counter-espionage is a cameraman's meat, and Lucien Andriot takes full advantage of it. Throughout, he makes excellent use of the modern increased-depth technique, and handles his predominantly strong, realistic lightings excellently. Some of his compositions are of particular dramatic effectiveness, too. In a film like this, the players are, generally speaking, rather secondary to dramatic mood, but he does very well by them, as might be expected of a cinematographer of his taste and ability.

THE YOUNG MR. PITT

20th Century-Fox Production (British.)

Director of Photography: Frederick Young, F.R.P.S., A.C.T.

This picture offers further evidence (if any is needed) of why Fred Young is rated as the top British cinematographer. His lightings, both of sets and of players, and his compositions, could scarcely be surpassed here in Hollywood. Some of his scenes of individual players—particularly in the portrait-like closer shots—are delightful, while his long-shots are a richly pictorial contrast to our own "rationed" sets.

Some fault can be found with the slight scene-to-scene variation in densities and general mood—which was certainly not helped by the dupe released here—but in view of the other excellences of the photography, these can well be overlooked. The crediting of the famed portrait photographer Cecil Beaton for set-design and decoration is interesting, as is Carol Reed's excellent, if slow-paced direction. But we'd recommend reading up a bit on English history before seeing the picture.

LUCKY JORDAN

Paramount Production.

Director of Photography: John F. Seitz, A.S.C.

As a picture, "Lucky Jordan" isn't particularly pretentious, but from the photographic viewpoint, director of photography John Seitz, A.S.C., has made it a joy to see. For years Seitz has been recognized as one of the really great masters of the camera, but for some time he has not had many opportunities to distinguish himself.

In "Lucky Jordan," he has—and he does so with a smooth sureness which makes it a picture you'd like to see again, so you could concentrate on enjoying Seitz' compositions and lightings.

AID RAID WARDENS

Metro-Goldwyn-Mayer Production.

Director of Photography: Walter Lundin, A.S.C.

It's a nice thing to see the name of Walter Lundin, A.S.C., on the screen again in a major feature. Ordinarily, a Laurel and Hardy comedy isn't exactly the place you'd go looking for good camerawork, but surprisingly, Lundin sandwiches in a surprising lot of it between the stars' gags. Wherever possible—notably in the closer shots of some of the other players—Lundin manages to get in some really pleasing "feature" camerawork. Yet when the comics are doing their stuff, his long experience making Harold Lloyd's famous laugh-makers stands him in good stead, and not a single laugh is lost. The gags are worth study, by the way; some of them as examples of the best silent-picture comedy of fifteen years ago, and others as the more modern (if sometimes less amusing) verbal comedy too prevalent today. Wonder why someone doesn't make an "all-out" revival of the strictly visual comedy of the days when Sennett, Lloyd, Laurel and Hardy, and others,

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and
Better Pictures

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were making the world laugh at their pantomimed antics—?

SOMETHING TO SHOUT ABOUT

Columbia Production.

Director of Photography: **Franz Planer, A.S.C.**

Franz Planer, A.S.C., has given this thoroughly routine backstage musical a much better photographic mounting than it deserves. He has not had very much in the way of photogenic opportunities with which to work, but when these opportunities arise, he does them abundant justice. Meantime, he treats the players very well indeed. In all of this he was handicapped by one of the worst laboratory jobs we have seen in several years—one which makes us wish we could see a really good print of the production so that we could judge Planer's work more fairly . . . assuming, of course, that we could bring ourselves to sit through the trite story and unnecessarily blatant sound-track and shouted dialog again.

THE MEANEST MAN IN THE WORLD

20th Century-Fox Production.

Director of Photography: **Sgt. Peverell Marley, A.S.C.**

This picture, one of the last photographed by Pev Marley, A.S.C., before he joined the Army Air Force, hardly represents his best work, but throughout it shows clearly his photographic skill. He handles his camera and lightings with a deft smoothness which lifts the picture considerably above the usual conventional comedy treatment.

Milt Krasner

(Continued from Page 172)

and cents, no school could have afforded the huge production investment which gave me my real training in practical cinematography. And without that practical experience I couldn't have learned. None of us could.

"That diversified training came in handy when I finally got my break as a First Cinematographer. Do you remember how, ten years ago, Charles R. Rogers was making himself a bit unpopular on the Paramount lot by turning out, independently, program releases for them, using their stars and their studio facilities, but at a cost a good deal less than half of what they could do it for—?

"Well, I had worked with Mr. Rogers before, at the old First National and elsewhere, and he had confidence in me and in what I could do. I worked for him on several of these pictures, as Operative Cameraman for Henry Sharp, A.S.C., and others, and finally Mr. Rogers decided I was ready for a chance shooting First Camera for him. So he promoted me—it was on an unimportant little picture called 'Strictly Personal'—and while, looking back on it, I don't think I did any too well, at least it suited Mr. Rogers, and was reasonably good and done very fast. So

I stayed on as a First Cinematographer."

He stayed on at Paramount, too, for several years. Then one day when things were slack at Paramount, he got a call from MGM . . . he went out to the Culver City plant for one picture—and stayed for more than ten months before leaving for Universal, to answer a call from his old chief, Charles Rogers, who was then Universal's production head. And there he has been ever since.

His work there has included a good bit of everything from program films and chillers to some of the studio's biggest productions . . . and he has taken all of it in his stride, with a clearly perceptible professional growth. It was through his camera, for instance, that Abbott and Costello first came to the screen in "Buck Privates." And at the other end of the photographic scale he has made such pictures as Frank Lloyd's "Lady from Cheyenne" and "The Spoilers," the latter starring—and satisfying—the photographically-hard-to-please Marlene Dietrich; and Walter Wanger's "We've Never Been Licked," and the Technicolored "Arabian Nights," which proved so strong a contender for this year's Academy Award for Color.

Krasner feels strongly that it is a cinematographer's professional duty as soon as he reaches the point where he is known and sought after, to see to it that he does not have to do too many pictures a year, and that he have the privilege of choosing his stories at least as freely as a director or player of equal standing.

"There's a double reason for that," he says. "First of all, it keeps me at my best, physically and mentally, so I can give my best to each picture I photograph. Second—and maybe more important in the long run—if I decline a picture because I don't like the story, or because I feel I need a vacation before taking on another assignment, it's going to give somebody else a chance at it. Maybe somebody who is just itching for something just a little better than he's been doing, but who never would have had it if the studio had been able to persuade me to do it. And that's likely to give the industry another 'A-picture' cameraman . . . or rather, let them discover that ability in someone they've just never given the chance to show it.

"I feel pretty darn strongly on that point. My own experience as an Operator and as a 'B-picture' director of photography has convinced me that there's an awful lot of good, first-string talent going to waste in those categories, just because most of the industry is afraid to give them a chance . . . because so many producers demand the security of established 'names' to photograph their big pictures. Well, these last ten years we've seen a lot of those established photographic 'names' killed off from sheer overwork. Yet somehow the younger fellows who have come up take their places, whether by promotion from operative jobs or promotion from 'B-picture' oblivion, have managed to do

just about as well, haven't they—?

"On the other hand, I don't mean that the fellows who get up to where they can pick and choose their pictures should try to specialize on any one type of picture, or on working with any given star, director or producer. Any cameraman worthy of the name should be able to do any sort of picture with equal facility.

"And he shouldn't let himself be scared away by the report that this star is hard to photograph, or that director or producer tough to work with. If he approaches the assignment open-mindedly, and with the right kind of ability (not trying slavishly to imitate what he's seen other cinematographers do with the same star), he's likely to find, as I have on several occasions, that the assignment he thought was going to be difficult is actually easy and pleasant. Instead of being unequal to it, he may even find himself being praised for having done better than many another fellow with a bigger name!

"But about that business of specialization—I'll have to take part of it back. A few months ago I finished by first Technicolor picture, and before long I'm due to start another. And if I had to specialize in anything, I think I'd like it to be color. Despite all these years of rumors about the difficulty of color camerawork, I found it surprisingly easy—easier, even, than black-and-white. And it's so much more gratifying on the screen, and so much more filled with as yet unattained possibilities, that I'll admit I'd like to do more of it . . . to explore more of the artistic and technical possibilities of what is, I am sure, the coming medium for truly expressive camerawork." END.

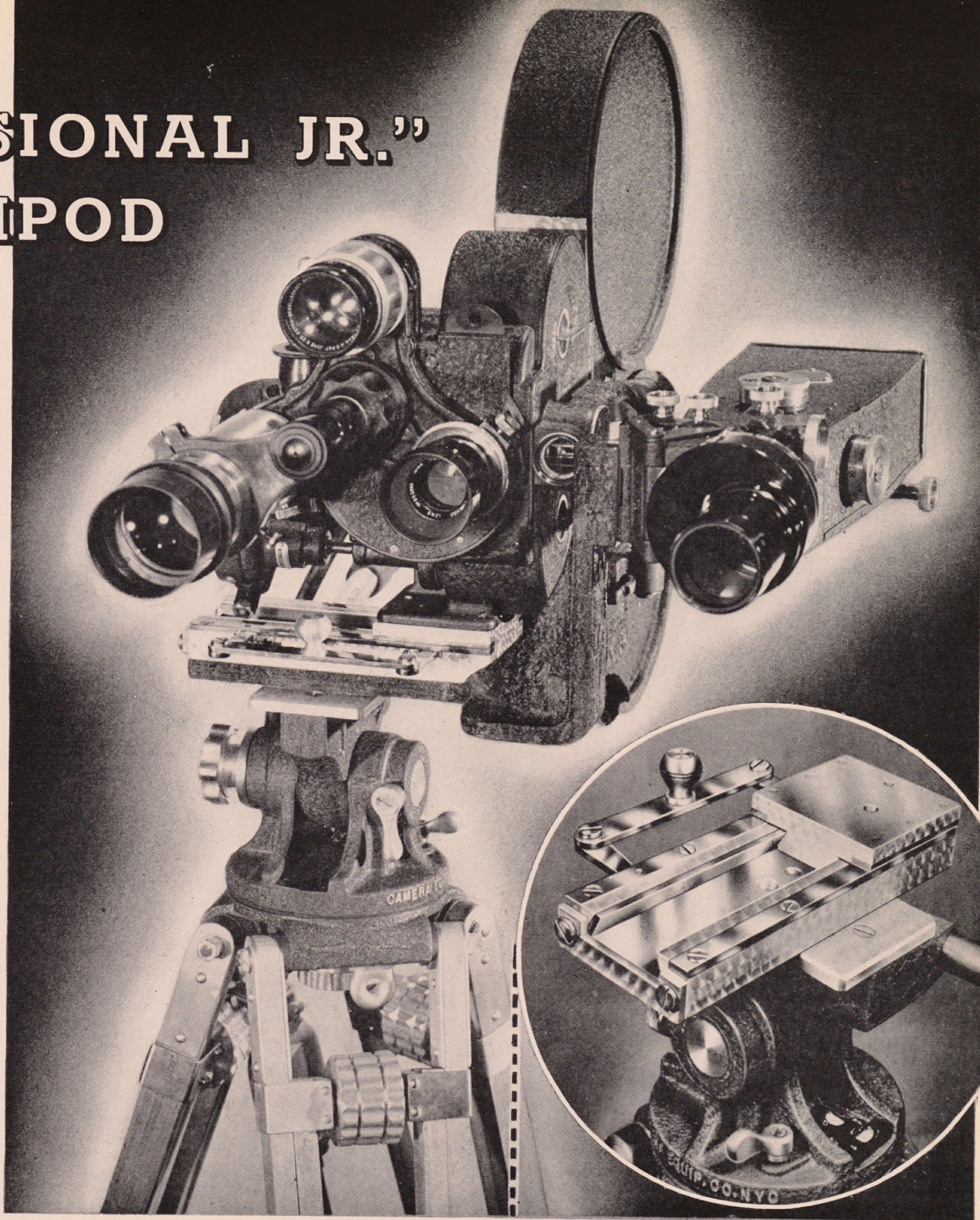
Desert Victory

(Continued from Page 167)

are none the less of the greatest importance in making the work of a combat camera unit of practical worth.

Out in the Middle East, we had a rather large territory to cover. GHQ was in Cairo, and from there our territory not only extended west to the firing front in the Western Desert (which ultimately came to mean a distance of over 1400 miles, as Rommel was driven back!), but westward in the Mediterranean to Malta and Cyprus, eastward to Jerusalem, Bagdad and, eventually, Teheran in Persia. To the north, we had to be ready to film anything along the Turkish and Russian frontiers, and when we first got to Egypt, our responsibilities also extended southward to Eritrea and Ethiopia, until the Italian forces were removed from those parts, and there was no more news to cover. On the map, this area may not look so large; but it actually measured more than 2200 miles from east to west, and 2,000 from north to south. In other words, it included an area about like the Western part of North America from Los Angeles to Chicago, and the entire Pacific Coast from well above Vancouver to a point

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★ The male of the Shiftover attaches to the camera base permanently and permits using the regular camera holding handle if desired. The male dovetail mates with the female dovetail base and permits the camera to slide from focusing to photographing positions for parallax adjustment. The camera can be locked in desired position by a positive locking-device.

★ The Shiftover has a "stop-bracket" which prevents the camera from sliding off the dovetail base—and is provided with dowel pins which position it to top-plates of tripods having $\frac{3}{8}$ or $\frac{1}{4}$ -20 camera fastening screw.

FRANK C. ZUCKER
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several hundred miles down into Mexico's Baja California. And we couldn't be too sure when some newsworthy action might suddenly "break" at any point in or adjacent to this area!

The solution, of course, was to station still and movie camera crews at strategic points, planned so that they could get quickly to any area where action was likely to occur, and to back these field units up with a string of bases at which replacements, still laboratory services, and the like, could be set up, and from which stills and movies could be expedited to GHQ at Cairo, at which base the latter could be processed, and the former put on the radiophoto for quick transmission to London.

The laboratory bases were located at Malta and Cyprus in the Mediterranean, and at Beyrouth in Syria, Jerusalem in Palestine, Bagdad in Iraq, and Teheran in Persia (Iran). From these bases we had camera crews stationed farther out at Aleppo, Alexandria, and other advanced points as needed, including, at first, points in Eritrea, Italian Somaliland, Ethiopia, etc.

So much for this basic coverage! Our main activity, like that of the 8th Army, was to be in the Western Desert as Generals Alexander and Montgomery tried conclusions with Rommel.

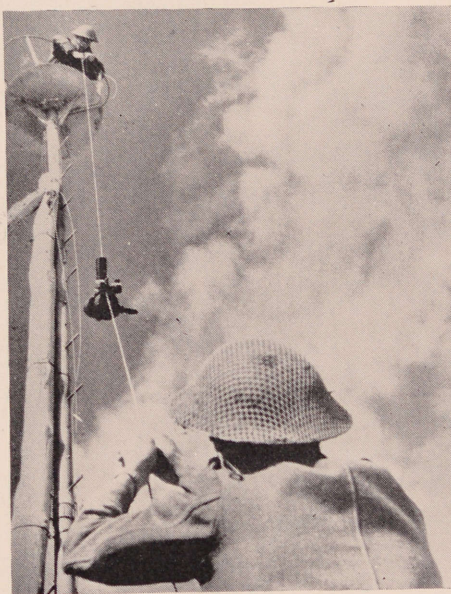
In this, our organization-plan was laid out along more strictly military lines. An army must have a fixed base of command, supplies, replacements, and the like; so did we. At GHQ in Cairo we had our own headquarters base, with all that this implies. There was located my own headquarters and that of my staff officers, from which all the activities of the unit were directed. It was there that our motion picture films were developed, printed, and edited, and the "rushes" screened.

For the laboratory work, the Cairo branch of the Eastman Kodak organization put its entire 35mm. section completely at our disposal. In addition to the 16mm. facilities usually found at Kodak branches, this plant also had a completely equipped set-up for developing 35mm. negative and positive (on an excellent machine, by the way), and for print-making, and the like. We simply moved in and took this section of the plant over, staffing it, where necessary, with our own technicians. I might say at this point that here, as elsewhere, the Kodak personnel gave us invaluable co-operation, even excelling that to which most of us have been accustomed to in normal civilian production.

Also at Cairo GHQ were our still picture-editor, who functioned about like the editor of a big newspaper service, deciding which stills were newsworthy, providing captions, and getting them sent to the appropriate military and civilian outlets. There, too, were our staff of cine film-cutters, our equipment office, the clerical staff, projection facilities, and the like.

From GHQ westward our operational organization extended toward (and often beyond) the fighting front. The first subdivision, and the point where I gen-

erally made my headquarters, was at the Field Headquarters of the 8th Army, from which General Montgomery directed the battle. There, in addition to such commissioned officers as might be necessary, we kept always a reserve of cameramen, to provide replacements as needed for more advanced units. There, too, we maintained our field repair-shop, in mobile mechanics vans staffed by two sergeant-mechanics, both of whom were highly skilled in the repair and maintenance of both cine and still cameras. We also kept Army H. Q. supplied with replacements of equipment and film.



Hauling an Eyemo up to an observation tower for a long-shot of a port town just captured from the "Eyeties."

From this point, our line of photographic communications paralleled that of the Army, branching out and downward through the usual military command subdivisions to the firing front proper. At each point would be stationed men who could serve as replacements for the front-line units when necessary, and who would see to it that film returned from the front would be routed back to GHQ as fast as possible. At Division or Brigade HQ would be our Section Leaders—commissioned officers whose responsibility it was to see to it that the men under their command from there to the front had everything they needed to function properly, and that their still and movie negatives were gotten back to GHQ as fast as possible.

For the front-line camerawork itself, our chaps worked in two-man teams—one cine cameraman and one still photographer. At the start, we had tried to economize, and have one man shoot both the movies and stills. It didn't work. If he did a good job on the movies, he would likely miss the really important still shots; if he got the stills, he was likely to slight the movies. Therefore, the two-man combat-camera teams of specialists.

One of the biggest factors in successful military camerawork, especially in regions where, as in the African Desert,

operations are so extremely fluid, is transport for your front-line camera crews. It always is, for transport, next to water, is one of the most valuable things in desert warfare.

At the start, we had our full share of trouble in getting transport. But after a little while, when some of our first films had to come back to show the authorities how valuable they could be, we managed to make ourselves self-sufficient in this respect. Every combat-camera team, and all of the officers, had their own transport—a jeep or a truck—and that way we were able to keep up with the front-line operations of the army.

From the front, exposed movie and still film was routed back to GHQ by the fastest possible means. Usually this meant motorcycle riders for the first few laps of the trip, and then by plane to GHQ from Corps or Army headquarters. We did rather well at this, too. For example, when the battle started with the big barrage against the German positions at El Alamein, we got our first stills of the artillery firing at about 11:30 at night. By 9:30 the negatives were in the laboratory in Cairo, and as soon as they were dry they were put on the wire-photo and radioed to London, where the pictures appeared in the papers that same afternoon! Later on, as distances stretched out and operations became more fluid, this communications problem grew more troublesome, but our lads did remarkably well at keeping supplies, equipment and personnel replacements and fresh and exposed films flowing constantly in both directions.

For field service, our camera equipment had to be light and rugged. Our still photographers were therefore supplied with Zeiss Ikontas, and our movie men with De Vrys, and a few Eyemos. The Eyemos were scarce, and so I would estimate that around 95% of "Desert Victory" was ground through our De Vrys, whose performance and ability to stand up under gruelling desert punishment constantly surprised us.

When the big push started at El Alamein on the night of November 23 last, we had twenty-six enlisted combat cinematographers and six officer section-leaders spread out with the army along the front, in addition to the chaps co-operating overhead in the R.A.F. Film Production Unit. When we reached Tripoli 80 days later, our chaps were still with or ahead of the army units, but we'd had severe casualties: four of our cameramen had been killed—one officer and three enlisted photographers; one officer and six photographers had been wounded, and two officers and four photographers had been captured; in other words, seventeen good lads out of a starting force of thirty-two. But those chaps, together with those who survived and the others who came forward as replacements, brought back 200,000 feet of absolutely authentic battle films, and innumerable stills to show the world just what desert warfare is like.

And I want to make it very clear that the real credit for whatever merit "Des-

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ert Victory" may have is due entirely to those young chaps who filmed and fought and bled and died in the desert making it. The rest of us saw to it that they had the film, equipment and personnel replacements they needed, and that their exposed footage got back for processing as promptly as possible. We edited their footage and tried to form the cream of it into a cohesive picture. But the lads with the cameras at the front really made "Desert Victory."

Those chaps were without doubt the bravest I've ever seen. They went against the enemy with both guns and cameras, and the material they brought back with their cameras was priceless. And let me tell you, it takes something more than just ordinary courage to keep grinding calmly and efficiently with a camera when somebody four or five miles away is sending over things that go off with a Hell of a bang when they land—and hurt, too.

During the preliminary training, we had stressed two or three things rather heavily. Not only such photographic essentials as "no panning," but other equally important maxims for combat camera work. For one thing, we'd rather rubbed it in that there were to be damned few shots of our infantry from the rear; once in a while a shot like that may be useful to show what our chaps were advancing into; but speaking generally, the rear elevation of one infantryman is a good deal like that of any other, and when the audience has seen the back of one soldier's neck, it's seen them all. The really dramatic thing is to see our lads as the enemy do—coming at one head-on, with rifles at the ready and bayonets set.

Then we'd emphasize the importance of getting the shots of action as close as possible. As we were rather short on telephoto lenses—the longest we had was a six-inch, and some cameras had only fours—this meant that the man with the camera had to get in rather close, too. When we issued our camera-crews their side arms—.38 revolvers—we told them that when they got close enough to Jerry to use those rather short-range weapons on him, then was the time to start shooting film! That's what they did, too.

We tried to give them some hints on what you might call the artistic side of desert battle-photography, too. Deserts, as such, are rather uninteresting places photographically, and present a rather drab outlook of bare sand and rock and scrubby brush. The fact that a thousand yards or so out there may be a Jerry tank burning may be dramatic in itself, but it isn't very photogenic. But if you can get some sort of a foreground-piece to make your composition complete—one of our guns firing, some of our chaps taking cover behind a tank, or even just a bit of a burned-out tank or lorry in the foreground—you'll have a much better picture.

Putting all of these admonitions into action, our lads from the Film and Photo Unit necessarily had to spend a good deal of their time considerably nearer the enemy than they were to our own

forces. As a matter of fact, we beat the army into Tobruk by a matter of an hour and a half, and in the scenes that show the Swastika coming down, and the Union Jack being run up, the "actors" were members of our camera unit.

That, incidentally, meant going through the mine-fields before our sappers had cleared a way. Those land-mines are nasty things at best. They're buried by the hundreds, just a few inches deep in the sand. Sometimes they go off the first time a man steps on them, or the wheel of a car or a tank rolls on one; sometimes that initial pressure simply starts off a clockwork mechanism which clicks off a mechanical count as man after man or vehicle after vehicle passes over unharmed—and then lets go explosively when the 39th or the 47th or so goes over.

Booby traps are another unpleasant hazard. When Jerry's leaving a place, he leaves something he knows is desirable, and wires an explosive charge to it. Binoculars, for example, are invaluable in desert warfare—and I suppose soldiers are soldiers no matter what uniform they wear. When Tommy glances into a building recently abandoned by the Jerries, and sees what looks like an excellent pair of Zeiss binoculars peering out from under an old coat, he's likely to appropriate them for his own use. When he picks them up a nice little mine blows up—and with it Tommy, and as many of his friends as may be about.

We lost quite a few of our chaps with mines and booby traps. Going into Tobruk, for example, we lost two fine lads. A mine blew up under one of our jeeps, and a Sergeant-Photographer was killed, while his driver was tossed 30 yards and very badly wounded.

In connection with the way our camera-units preceded the army, I've been interested to note in a recent newspaper account of the first meeting between men of the British 8th Army and General Patton's Americans that the British representative was one of my own Sergeant-photographers!

We encountered some of the German field cameramen, too—as our prisoners. We captured several of them, and quite a bit of undeveloped film from their cameras, and prints of some of their newsreels, as well. Cut into "Desert Victory," they made the picture more complete by showing what was happening on both sides of the lines—close-ups of Rommel and his staff at the front, and at home in Berlin, receiving his Field Marshal's baton from Hitler; shots of the German ground forces in action, and of the Luftwaffe's "Stukas" peeling off and dive-bombing our chaps before the R.A.F. drove them out of the air.

I even had the pleasure of meeting my "opposite number"—the head of Rommel's photographic unit. It was comforting to learn from him that his cameramen had had the same difficulties we had in contending with the dust, the heat, and the monotonous terrain. It was also interesting to learn from him that while the Afrika Korps was advancing, he

used from 30 to 40 cameramen to cover the action, but that after the German retreat began, he reduced his coverage to a mere half-dozen men!

By the time our forces had taken Tripoli, we had somewhat over 200,000 feet of excellent film, which told the whole story of the battle from El Alamein to Tripoli. So I decided to take it back to London, where I could sit down and make a picture out of it. In this I was aided by J. L. Hodson, who collaborated with me on the script, and did the commentary, as well; Capt. Roy Boulting, Lt. Patrick Jenkins, and Sgt. Richard Best, who did the extraordinarily fine job of editing. William Alwyn composed and directed the musical score, and the recording was done on the unit Western Electric had donated to us "for duration." That, by the way, was quite a gift, for they gave us a complete unit of their very latest recording equipment, at no cost whatsoever, and royalty charges only on what footage might be given theatrical release.

In completing the picture, we tried to make it not so much an over-long newsreel of battle shots, or a personalized, sentimental story, but a realistic presentation of all that goes into a big modern military operation, from the first preparation in the shops and factories of the home front, and the training of the soldiers, through the battle itself (with a good explanation of the strategy involved) to the accomplishment of the mission, as shown by an insert of General Alexander's wire to Mr. Churchill, reporting that he had carried out the Prime Minister's instructions to drive the enemy from Egypt and adjacent regions.

In doing this, I think it may be interesting to point out that we found it necessary to "stage" only a very few shots for cut-in purposes. As a matter of fact, the completed picture runs 5400 feet, and the "staged," or as I like to call them, "matched" shots comprise only 179 feet. These comprised close shots made at night during the start of the bombardment at El Alamein. We tried for the real thing there, but shooting actually at night, there was so little light that a great deal of our footage came from the developing-machine with no printable exposure on it. What we had that was printable, went into the picture. The night-effects we had to "stage" for cutting purposes measured, as I have said, 179 feet. So I hope "Desert Victory" will be taken generally for the authentic document that it is.

The picture is now complete, and going into release in this country through 20th Century-Fox. I hope it will give the people of both our countries a better understanding of what our own chaps—Americans as well as British—are going through out there in the African desert.

Meantime the others in my unit, like good picture men, have already gotten well along with a sequel to "Desert Victory." At the last I heard, they had more than 170,000 feet of film showing how our joint forces are pushing Rom-

mel back from Tripoli into Tunisia. I hope that I may get back to Africa before our joint forces push him finally into the sea. But whether I do or not, I know the boys with the cameras are carrying on very well, and the show is being directed very well by four very fine directors of such productions—Generals Montgomery, Alexander, Patton and Eisenhower. With such resources, I am confident we will soon come back with another film which will justify all the nice things everyone I've met in America, from the President down, has said about "Desert Victory." **END.**

Exposure Control

(Continued from Page 170)

era. This means that it will be necessary to increase the "ground exposure" value by a factor of 2 to get the proper "aloft exposure."

A special computer identical with the Norwood contrast computer mentioned in an article in this magazine (see *AMERICAN CINEMATOGRAPHER*, April, 1943, Pages 126-127) is used to perform this correction. In using this computer for aerial exposure control, first set the "ground illumination" value on the *inner* scale next to the "aloft illumination" value on the *outer* scale. Next, locate on the *outer* scale the value already found for "ground exposure," which will be identical with the "ground illumination" value. Adjacent to this reading on the *outer* scale, the correct "aloft exposure" value will be found on the *inner* scale. At the same time, the bottom, or contrast-factor scale will indicate the light-transmission of the haze blanket.

Reducing this example to practical terms, let us assume that the "ground illumination" reading is $f:8$, and the "aloft illumination," $f:11$. The computer will then be set as shown in Figure 2, which is self-explanatory.

Selecting a filter for aerial camera-work is naturally greatly aided by knowing the transmission factor of the haze through which the still or movie camera is seeking to penetrate. This information, gained through the meter-readings and computations described above, when coupled with a knowledge of the characteristics of the film being used, will greatly simplify the matter of selecting the right filter for the job.

The same computer can then be used to make the necessary compensation between the unfiltered "aloft exposure" and the final, filtered exposure. Assuming that in the example just cited a filter with a 4x factor is selected. Then—after determining the correct, unfiltered "aloft exposure" as previously outlined—the computer index on the lower scale should be set to 4, as shown in Figure 3. Then on the upper *outer* scale locate the unfiltered "aloft exposure"—in this case, $f:5.6$. Adjacent to this on the *inner* scale will be found the correct (filtered) "working exposure," which in this case is $f:2.8$.

The same basic technique can be applied on missions where some considerable time may elapse from take-off to arrival at the point where the pictures are to be taken, during which period the sun's intensity and angle may change considerably. An initial set of measurements made immediately before take-off and upon arrival at operating altitude will give readings for the ground illumination, aloft illumination, haze factor, and aloft exposure under the conditions then applying. This establishes a known relation between the aloft illumination factor and the haze factor.

Therefore, unless a very considerable visible lessening or increase of haze should take place between the start of the mission and arrival at the place the photographs are to be made, it may be assumed that the haze factor remains reasonably constant. Therefore, a new measurement of aloft illumination, in addition to the factors already known, will quickly give the ground illumination and aloft exposure applying under the changed overall illumination conditions, and the correct exposure can be quickly determined.

It may be mentioned, incidentally, that in making these ground and aloft readings it is advisable to make both readings from the cockpit or navigator's observation post, so that local conditions immediately surrounding the meter may be the same for both readings, and no element of local error be introduced. Should it be necessary to take readings

through an overhead, transparent dome, it is advisable to take one reading (on the ground) beneath the dome, and another one in as nearly as possible the same position outside, in order to derive a figure by which any measurable light-absorption by the material of the dome itself may be measured and, if necessary, compensated for in making the actual operational readings.

Making oblique shots from the air will not generally require the special technique outlined above for vertical airshots, unless the scene is taken from a high altitude and it is definitely desired to show the ground in the distance, through the intervening haze, which then must of course be compensated for. But in most oblique shots, which are generally made from lower levels, a single, simple measurement of light is necessary. This will be simply for aloft illumination, and made with the meter's hemispherical collector pointing in exactly the opposite direction from that in which the camera's lens is pointed. **END.**

Titles

(Continued from Page 182)

film is undoubtedly the most suitable for this type of title work. In addition to its high contrast, it comes in five different color bases at no extra cost. Titles made on these tinted stocks go very well with Kodachrome films. One thought must be kept in mind when using posi-

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tive film, however: since such film will not be developed by the reversal process, the color-values of the title-cards must be reversed from the way they are to appear on the screen. That is, black printing on a white background will appear on the screen as white printing on a black background, and vice-versa.

Without doubt the most perfect titles, though, are those made on reversal-film of the same type used for the rest of the picture. By this I mean not only Kodachrome titles for a Kodachrome picture, and black-and-white reversal-film titles for a black-and-white picture, but that in monochrome, reversal-film titles should be shot on the same brand and type of film used for the picture.

If you've used, say, Eastman "Safety Film" for your picture, don't try to use Super-X or Super-XX for the titles just because it's faster to artificial light; still less any other brand of film. If you do, there's likely to be enough difference in the thickness of the film to throw your titles out of focus when the projector is correctly focused for the picture, and probably a noticeable difference in contrast, and sometimes in the tone or coloring of the titles as well... the latter especially if you use another brand of film, which may be processed in different solutions.

Many cine-enthusiasts, even though they make good titles, don't seem to have a very clear idea of when to use the different types of title. Some of them like to use very elaborate, "arty" titles throughout the picture; others go to the other extreme and use the simplest possible titles from one end of their epic to the other. Neither practice is right.

The elaborate ones—which in the silent days the professionals used to call "art titles"—correctly belong only at the beginning and the end of a picture, and occasionally as an introduction to a very complete change of sequence. Cut in anywhere else, they're too likely to interrupt the audience's concentration

on the picture by their very "artiness." But for main and credit titles, end-titles, and spots where you're making a very big jump—one that amounts to a basic change of thought—in time, space, or action, they're great. And you can shoot the works on them, dressing them up with painted or photographic backgrounds, double-exposures, animation, and striking lettering.

On the other hand, for subtitles which are inserted within a scene or sequence merely to make clear something your pictured action cannot or does not show, the simpler styles of titles are by far the best. The lettering should be simple and very easily read—plain block lettering if you do it by hand, and a simple, plain type-face like the one printers call "Kabel bold" if you use printed title-cards. The backgrounds should be just as simple. Usually, regardless of whether you use color or monochrome, light letters (preferably white) against a black or at least dark-toned background, will be best.

Generally a plain background will be better than a patterned one. In Kodachrome, a flat color which blends pleasingly with the overall coloring of the scenes before and after the title is best. Dark blue, for instance, with white letters, is always good; but warmer colors like red, purple, orange and yellow, as well as the lighter or pastel shades of blue and green, should be avoided. Colored lettering, even though it furnishes a pleasing contrast with the background, should usually be avoided for subtitles, for it is visually distracting.

You can work up a nice argument, even among professional title-makers, as to whether, in monochrome subtitles, a plain black background or a dark gray one is preferable. Some people even like a very slightly patterned or mottled background which is, or will at least photograph as a dark gray. Speaking broadly, a very good rule to follow is, "when in doubt, use plain black."

If you want to add a more or less distinctive touch to your pictures, like a recurring trade-mark, there's an old trick some of the silent-film producers used in the subtitles of their films, which you can use in yours. D. W. Griffith, for instance, had a little line border around his subtitles, with the line forming at one corner the initials "D.W.G." Quite a few of the other top producers, directors and stars of the silent days used a similar trick. Marshall Neilan, I believe, used his swastika trade-mark (remember, this was twenty years before Hitler made the Hindu good-luck sign so unpopular!), and I think Charlie Chaplin, Mary Pickford, Doug Fairbanks, Sr., Charles Ray, Norma Talmadge, and quite a few others used similar monogrammed subtitles.

You can do the same thing easily enough by lettering your border and monogram on a sheet of clear celluloid or cellophane which can be placed over the subtitle-cards when photographing. A medium gray is best for this design,

as it will be visible enough, yet not so strong as to distract attention from the white letters of the subtitle.

Titles should be kept to a minimum, lest they defeat their own purpose, and become distracting or boring. So should the wording. Short, direct-to-the-point wording should be used, and the copy carefully edited. But don't make the mistake of making your subtitles so overly brief that they sound telegraphic. "Lake Minnetonka" may tell the story of a side-trip from a visit to Minneapolis—but "One week-end we drove out to see Lake Minnetonka" tells it much more smoothly and completely. In a word, keep subtitle-wording short, but literate!

In the more elaborate titles, which are usually harder to read because of their decorative lettering and backgrounds, you really need to be brief so that your audience can grasp the whole meaning of the title quickly. This ought to be easy, though, for you don't usually have to use many words in main and credit titles—and when you've reached the last scene in the picture, what is there to say in a title but—THE END?

Smith New A.S.C. President

(Continued from Page 169)

clear that these activities are as much for the 'little fellows' of the profession as for the men at the top; more so, in fact, for the men on top-bracket major-studio contracts don't need it as much, while the others can be advanced to better standing in the industry by the combination of interchange of technical ideas, experienced business advice, and well-planned publicity which the A.S.C. is gearing itself to offer. The camera profession has advanced tremendously in knowledge, and in standing in the twenty-five years since the A.S.C. was founded. The aim of my administration is to carry those advances still farther. With the loyal support of the officers, the Board and the members, I am sure we will do it."

Executive Vice-President Jackman, who declined re-election to the presidency because of his belief that two consecutive terms were as long as any one man should hold that office, and because he felt that the chair should be occupied by an active director of photography, supplemented President Smith's remarks by saying, "There is a definite need in the industry for organizations which will give them an opportunity for social and professionally educational activities. But the two don't mix; they cannot successfully be handled by a single organization. We can speak from experience in this—we've tried it."

"Ten years ago, unfortunate circumstances forced the duty of economically representing cinematographers upon the A.S.C. As one of the pioneer members of the Society, I can say that this was not the primary purpose of its founders, and it certainly was not a responsibility any of us sought. But when it was



Photo by Wallace Thompson

forced upon us, we carried on to the best of our ability, and for a considerable period the type of administration in the organization originally set up for this purpose made it very obvious that we must carry that burden.

"Today, things have changed. There has been a thorough house-cleaning in the I.A.T.S.E., and our personal contacts with both the local and the international officials of that organization have convinced us that the directors of photography will get a square deal from them. Accordingly, I started that negotiations, which are now being finished by President Smith and myself, to turn these duties over to Local 659, which can represent the entire camera craft efficiently and honestly.

"This will bring the A.S.C. back to its original purpose of getting the most progressive members of the camera craft together for social and professional contacts. It will enable us to advance the professional interests of First Cameramen—as apart from purely labor-union interests—in ways that only an organization like the A.S.C. can. And with them, we can further the technical progress of the industry as a whole.

"In the past, as veteran members of the organization know, the A.S.C. and its members have played a vital, creative part in advancing both the artistic and the technical phases of cinematography. The cameras we now use—the film upon which we make our pictures—the lenses through which we make them—all owe much of their present perfection to the fact that at meetings of the A.S.C. the practical men of the camera and the designers, photochemists and opticians could sit down together and discuss their mutual problems in friendly, round-table fashion.

"I'm not taking anything away from the brilliant men on the engineering staffs of the various manufacturing companies when I say that without the practical help of the First Cinematographers in the A.S.C. they could not have achieved as much as they have during these last twenty-five years. It has been the cinematographers who have told them 'We want this . . . we need that,' or even with brutal, if friendly, frankness, 'You've got a good idea there, but here—and here—and here are practical bugs that must be eliminated before it's really worthwhile for production use.' And only in an organization like the A.S.C. is that interchange possible.

"As a result, we have marvellous materials and equipment today. But improvements are still possible, and in many details, radical changes are on the way. And we in the A.S.C. today have the privilege of taking again an active part in making them practical, and of being in on the ground floor of knowing how to use them when they are finally perfected for our use.

"So I think that now, as the A.S.C. enters its twenty-fifth year, while it has great achievements to look back on, it has much greater achievements,

both for its members and for the profession as a whole, to look forward to. In every way, there's photographic history to be made—and we're going to help make it!" END.

Russian Camera Aces

(Continued from Page 168)

largely in action against the Nazis with the Black Sea fleet. Naval camerawork, he tells us, is no sinecure when one is being attacked from all sides by Nazi land, sea and air forces, and one's own ship is dishing out equal punishment, as well. Then is the time when one must know his camera and lenses so perfectly that their operation will take no conscious thought. You need all your mind, he says, to select the best and most spectacular action when things are happening so rapidly and both you and your subject change positions so quickly.

His comrades told us that Mikosha's favorite position for a camera set-up for filming this dangerous action was directly atop of the spare torpedoes on a torpedo-boat. As there were often fifteen or twenty Nazi planes bombing and machine-gunning his boat—not to mention the 500 lbs. of TNT in the war-head of torpedo and of the 1500-lb. pressure in its air compartment, this could hardly have been termed the most secure of camera positions!

At another time, filming a bombing raid on Sulin, he returned in a ship ventilated by no less than 64 bullet-holes, and in which one member of the crew had been killed, and the landing-gear so damaged that the big ship had to make a crash belly-landing.

Mikosha was one of the last, if not actually the last to be evacuated from the siege of Sevastopol, and he left then only because he was shell-shocked and wounded, and was evacuated over his own protests. Before that he had been twice wounded, each time refusing hospitalization as he felt he had more important work to do at the front!

Cinematographer Litkin, before the war, had done some production camerawork in Moscow, and then spent five years as a special newsreel correspondent in the Far East. There, he served outstandingly as a cameraman, director and writer of news and documentary films, and in his spare time hunted tigers to be sent back alive to the zoos of the larger cities.

Shortly before the war he won the Stalin Prize for making the documentary film "One Day in the Soviet Union," and while in Hollywood he learned that he had again participated in this highest award for his part in making "One Day of War."

His special advice to the combat cameramen in the American forces is to remember always not only not to expose his own life unnecessarily (that's one's own business) but always to be especially careful not to disclose or draw attention to the various units of the Army which may be disposed in his sector.

The wartime cameraman, he adds, must be completely familiar with his equipment and its use. The equipment, too, must be so light and portable that he can carry all or most of it in his shoulder-bags. He must have a lot of initiative, too, for he cannot wait for orders from someone else; he must use his own judgment for the most part in choosing his shots. At the same time, he must keep in contact with those officers who are in charge of planning military operations, so that he, in turn, can make sure of being ready with his camera at the places where photographic conditions are likely to be best, and where the most spectacular action is likeliest to occur.

One of his most interesting experiences was a fortnight spent with the guerillas who operate back of the Nazi lines, not only making life uncomfortably dangerous for the Germans, but capturing Nazi officers and soldiers and relaying information obtained from them back to the Russian command. During one of these guerilla skirmishes, Litkin took part in a forest battle in which the Nazis were defeated and scattered through the forest: he himself followed one of the fleeing Nazis, photographed his attempts at escape, and finally brought him back a prisoner—though, he says, the Nazi is a much more savage beast than the tigers Litkin used to hunt!

This assignment was complicated by fact that it was conducted during the Russian winter which proved such an enemy to the Nazis. He and his cameracrew had to travel light, carrying their cameras and about 900 feet of negative each, and due to the intense cold they not only had to drain the oil from their cameras, but carry both cameras and film beneath their uniforms to keep the

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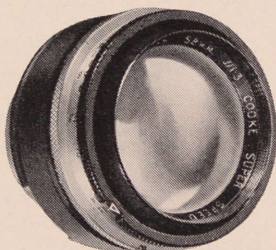
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cameras from freezing and the film from crumbling.

Cinematographer Soloviev was another who in peace-time made documentary films both in the studios and in the field. But when war came, he went to the front, where he has remained since September, 1941, except for a three-month interval during which he was hospitalized for illness. During the making of the Academy Award-winning "Moscow Strikes Back," he worked on the Central Front, filming not only tank battles but infantry attacks and aerial action, as well.

And yet, with all these bloody and nerve-racking experiences behind them, these four cinematic musketeers had one unanimous answer when they were asked how they liked Hollywood. "It's an interesting place," they said, almost together, "and our fellow-cinematographers here treat us wonderfully. But we're anxious to get back to our own country, for there, at the front, we've still got a job to do!" END.



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Care of 16 mm. Sound Film

(Continued from Page 180)

wound on a rewind device, is allowed to run through it with only a very slight pressure being exerted upon it. If the cloth is held near the reel from which the film is being unwound, the film will be dry of all cleaner by the time it reaches the take-up reel. When cleaning Kodachrome or color films, it is important that as much as possible of the cleaner be squeezed from the cloth before attempting to clean this type of film. A glance at your cleaning cloth after cleaning a hundred feet or so of film will show how much oil and dirt has been removed. The quality of the projected image on the screen and that of the sound will both show a noticeable improvement.

How often the film should be cleaned depends upon the conditions under which it is shown, and how it has been stored. If it has been shown in a dusty room or projected under dusty conditions, it should be cleaned often. The same also applies if it has been stored loosely wound for any length of time elsewhere than in a dustproof container. An examination of the film on a rewind or editing device that reveals spots of oil, grease, fingerprints, pieces of loose emulsion, or dust is a sure indication that it needs cleaning.

Films with torn or broken sprocket perforations should be repaired as soon as possible. This is especially important in the case of 16mm. sound-film, for with this type of film there is only one row of perforations for the sprockets and claw to engage. Projection of these films with broken or torn perforations is inviting trouble in the form of ripped and scratched films, and the loss of much valuable footage.

These breaks will show up many times when you are cleaning your films, as the cleaning cloth will catch in them. Whenever this occurs, immediately stop and repair the break. It is also a good idea to occasionally inspect the film on a rewind device by allowing the film to run slowly through your fingers; holding it only by its edges. If your film has any places where it has been previously broken and joined together (spliced), inspect these places and look for any breaks, tears or loose edges between the

perforations. At the same time inspect the joint by twisting it slightly to see if it is in good condition. If it appears loose, open it or cut it out and re-splice it.

Repairs on torn film are made by a very simple process known as splicing. The making of a good splice, however, requires the use of an instrument known as a splicer or splicing block. There are a number of good makes of these on the market, to be had in all price ranges. If you project your film only once in a while, I would suggest that you have your photographic dealer make any repairs that might be necessary. However, if you handle a lot of film, then a good splicer is a most essential item for your use. Here it might be said that Bell & Howell puts out a diagonal splicer that makes a diagonal splice across the film, while Eastman and Craig put out splicers that make a straight splice directly across the film, at right angles to its edge. For strictly professional use, where you want to make splices that are as nearly invisible as possible, or where you are working with Kodachrome originals that are to be duped, or enlarged to 35mm., the only splicer to use is the Griswold, which is the only 16mm. splicer made which will make the narrow, "negative" splice, which measures .05" wide as compared to .072" or wider for most 16mm. splices. These splicers are only obtainable on a priority basis at this time, however. Which type you wish to use and the amount of money you wish to invest is a matter of personal choice and budget limitations.

Essentially the making of a good splice is the same regardless of the instrument used. The damaged sections of the film are removed by the cutter of the splicer. From one of these ends the emulsion or picture-carrying material on the dull side of the film is scraped away by the splicer's scraper. The shiny side of the unscrapped end is overlapped onto the scraped end so that both of the dull surfaces of the film face upwards. The ends are separated slightly, a little film-cement is applied to the scraped end, and the two ends are clamped together by the splicer's clamp for about thirty seconds, at the end of which time the splice is

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completed and may be removed from the splicer. The whole operation is very simple. If a little water is applied to the end that is to be scraped, it will be found that the emulsion may be removed easier, though perhaps not so neatly. Here it might be stressed that *all* of the emulsion must be removed from the area covered by the scraper if the splice is to hold permanently. It is also a good idea to roughen the film base after the emulsion has been removed so that the welding action of the film-cement will be better. The registration pins of the splicer will hold the film in correct registration during these operations so that the splice will be perfect.

After the splice has been removed from the splicer, test it to make sure that it won't come apart, by twisting it slightly. Bad splices will come apart during projection and may cause film damage. These bad splices are caused by: (1) the emulsion not being thoroughly scraped off; (2) an insufficient amount of cement being put into the splice; (3) too much cement on the splice which will dissolve the film base and make the film weak and brittle at this point; and (4) old cement which has lost its welding power or will cause the film to become stiff, hard, and buckle on projection—usually breaking between the sprockets. Use only good, fresh film-cement and keep the cover on tight at all times when not using it.

On sound-films, whenever a splice passes through the sound gate, you may have noticed a sudden pop or blurb from the loudspeaker. This is caused by the sudden interruption of the sound-track by the splice. It may be avoided if, at the time of making the splice, a wide "V", with its legs spread far apart, is made across the sound-track area of the splice with black water-color paint or other opaque material that will not readily rub off. You can get special paint for this, known as "blooming paint" from most theatre-supply stores. This "V" will serve to extinguish the track gradually and thus eliminate the sudden, objectionable pop.

As was mentioned earlier, motion picture film should be kept in dustproof containers at all times.

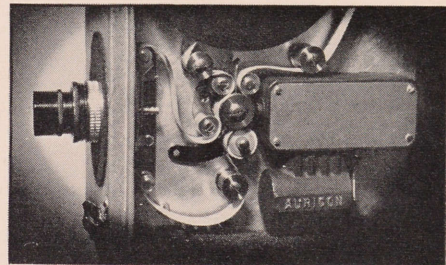
Immediately after the film has been projected it should be returned to its can and covered—and then as soon after-

wards as possible it should be rewound onto the original reel, ready for the next projection. In rewinding your film, do not rewind it too tightly. On the other hand, do not rewind it too loosely, as this will allow it to shake in folds in the can and cause frictional wear during transportation and projection. Maintain a fairly even pressure on the rewind brake or supply reel when winding onto the take-up reel. This will assure the film being wound smoothly and with an even-tensioned flow, and will keep the dust from settling into it when the cover is off the container previous to loading and unloading the projector. If your film has been wound too loosely on its reel, rewind it again: *never* take it by its end and pull it tight. If you do, this will cause bad scratch-marks known as "cinch marks" on the film.

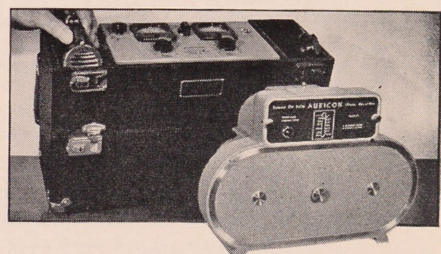
Store your films in a cool dry place. This is especially important with Kodachrome or color films which are readily attacked both by excess moisture and heat, resulting in the emulsion blistering and the colors fading. Do not at any time allow your films to be kept near a source of heat such as a furnace, a radiator, hot-air register, steam pipes, etc. To do so will cause the film to shrink so badly that it will be impossible to project it. In hot weather, do not leave your films in a closed automobile—the temperature will build up amazingly and may ruin your film if the car is left in the sun for any length of time.

Black-and-white film which has been stored for a long period of time where it is very dry is liable to become quite brittle and break repeatedly on projection because of loss of its moisture content. This happens quite frequently in office-buildings heated by steam radiators, where the air is liable to be very, very dry. If this is the case, the film should be humidified before use. In the bottom of most film cans is a small blotter, covered by perforated metal or wire mesh. This should be dampened and the film stored in the closed can for from twenty-four hours to three days. Do not allow any water to touch the film as it will mildew and be ruined. If the films have to be stored in an excessively dry place where they are liable to dry out, moisten the humidification-pads or blotters every four to six months depending

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In threading your films into your projector, always hold the film by its edges being careful not to get your fingers or hands on the picture area. Provide a long enough leader, which in most cases with sound-films should be about six feet in length. This will enable you to thread and check the running of the machine on the leader, thus relieving the picture proper of the strain of starting and stopping. If at any time the projector does not sound right, or you should lose the loop in the projector, stop it immediately and re-check the threading. Continual loss of loops usually indicate a film which either is shrunk or has broken perforations and is in need of repair. When handling your films during repairs, be sure that your hands are free of any grease or oil which might be transferred to the film. It is a good idea to purchase a cheap pair of cotton gloves and wear these when handling film.

So much for your films. Observe the preceding rules and you will do much towards lengthening their useful life.—
(To be continued)

Sound on Silent Projector

(Continued from Page 181)

all have to line up with the lower sprocket on the machine.

Now we come to the exciter-lamp which is a standard 8½-volt lamp. The socket was purchased from one of the local auto accessory stores and was mounted on a bracket approximately ⅛-inch below the sound lens. I then fitted a metal shield with a hole about ⅛-inch in diameter for the light to travel through to sound lens. This shield was made so that it could be slid on and off should it be necessary to change the exciter-lamp. This covers everything up to assembly, which is really quite a precise job. However, I made everything that would need adjusting with plenty of leeway for adjustment.

Three holes were drilled through the top of the plate for 10 x 32 fillister-head screws. These were spotted into projector and then drilled through with a No. 21 drill and then tapped. The plate was then mounted on the projector and

the sound-lens was put into place and fastened with a clamp made of thin brass held by small screws which, when loosened, would allow the lens to be moved up or down for focusing.

Next, the bearing for the shaft for the film drum was shoved through the holes in projector and screwed into the plate. When this is in place it will fit inside the drive belt, nicely clearing it on both sides. The drum and fly-wheel pulley are put on the shaft and secured with a nut on both ends of the shaft.

The photocell is shoved into its housing and wires soldered to the leads on the tube. These wires must be shielded and grounded or a heavy hum will result when the amplifier is started. A cap was then fitted over the housing. Then leads were also fastened to the socket of exciter lamp. We are now ready for the amplifier, of which I will give you a description.

The amplifier is very versatile. It was built to my specifications by my friend, Wm. R. Stanmyre, who is a sound engineer. I had on hand an amplifier which I had used for recording and play-back of sound-on-disc; he tore this amplifier down and salvaged what parts he could and built an amplifier with the proper frequency curve for sound-on-film. There are six plug-in jacks, one for microphone, one for recording, two for dual phono reproduction, one for photocell, and one for exciter-lamp supply.

When the projector is set on the amplifier it is secured to same by a knurled screw that goes through a hole in the projector-base and into a threaded bushing in the top of the amplifier. The amplifier is crackle finished, as is also the sound plate, matching perfectly the finish on the projector. The working parts mounted on the plate were given a coat of bright nickel, as it would not do to have them buffed as that would make them uneven in spots. The whole outfit looks as if it might have been made at the same time by the Eastman Kodak Co.!

The next problem was really tougher than the work I have just described. I was faced with the problem of lengthening out the arms to accommodate 1600-ft. reels. At first this seemed very simple, but when I started to do it I really found I had a job on my hands! After many trials and errors I finally hit upon a design that would really work. If I were to do it over again I would make a pattern and have them cast, which would be easier and neater.

The photo will give you as good a description as I can with words. To drive the take-up reel I turned up a pulley from bronze and counterbored it just enough to set the regular pulley into it to center it. I then turned up a small pulley ½-inch in diameter and located this one where the arm makes its first bend.

I hooked one side of the belt over this

pulley; otherwise it would rub against the side of the projector. The belt was purchased at one of the local stores from a make-it-up kit. These belts come in assorted sizes and are cut off any length you want. It is necessary to get the same size belt that comes on the projector or it will not pull enough to take up a large reel.

At the end of the bottom arm I bored it out to take the spindle that came with the machine. The top arm was more simple to elongate; I simply cut the regular arm in two and fitted a four-inch piece into the center. The arms were then crackle-finished to match the rest of the projector. When using 400-ft. reels, the belt is run on the small pulley, and when using 1200 or 1600--ft. reels the belt is run on the large pulley. The belt easily stretches the extra length.

The speaker is a General Electric with a 12-inch cone. The speaker-case also accommodates the amplifier for carrying purposes. There are 25 feet of wire connected to speaker for average home use, and I carry another extension of 40 feet to couple on for hall or Auditorium work.

After carefully adjusting the machine I threaded it up with a musical cartoon, and with heart beating somewhat faster than normal I adjusted the controls and started the machine. To my great satisfaction I heard music—not quite right yet, but better than I had hoped to hear when I first started the machine!

I adjusted the sound-lens for focus and also the exciter-lamp, but the sound was still a little choppy.

Finally I took a pencil and started holding it at different points against the film housing to add tension to it; and at one spot half-way between the photocell housing and the film stabilizing drum, the sound smoothed out and was as nearly perfect as any 16mm. sound that I had ever heard. So I then made a small roller and mounted it so as to

hold the film up closer against the photocell housing. This is shown as No. 5 on the photo.

I then threaded the machine up again, started and adjusted it to sound speed, and with a feeling of pride and satisfaction I settled down and enjoyed the picture and heard as good sound as I have heard from any factory-tailored job. I had done it! I had added S-O-F to my previously silent projector!

In ending this article I wish to say that the motor supplied with the projector will run the projector at sound speed through full 1600-ft. of film at a constant speed. It does not speed up and slow down as do those on most silent projectors.

The cost? Well, here is a list of parts purchased.

Holmes sound-lens	\$ 9.00
Photoelectric cell	2.95
Exciter-lamp60
Lamp socket20
Film shoe65
Wire30
Parts to rebuild amplifier.....	10.00
	<hr/> \$22.70

I suppose if Stanmyre and I had figured in proper charges for our time spent in making the conversion, the price would run up to something that would be pretty well on a par with a professionally-made job. But that would take it out of the amateur class—and our interest in the whole thing was as amateurs who wanted 16mm. sound-on-film without paying for factory-made S-O-F projectors we couldn't afford—and which we couldn't buy at any price today anyhow. END.

Slang On the Screen

(Continued from Page 179)

was staggered so the dolly could move the entire length of the boards.

Several of the shots required double-exposure and for this black flannel was found superior to the conventional black velvet. Velvet has too much sheen in one direction and it is sometime difficult to arrange the lights to avoid this reflection. Black cotton floc is also better and can be sprayed over any irregular surface, but as it requires a varnish base it can be removed only with paint remover or lacquer thinner. But as the actors could hardly be painted with varnish and floc, they were covered with black flannel for some scenes.

In one place in the script the action called for them to "Paint the town red." The scene fades in on a skyline scene of New York City at night. Dance music fades in slowly and then the camera dollies back from the New York City skyline which reveals itself as being a picture hanging on the wall of a night-club. The young man and the girl come skipping in in front of the picture. By this time the camera has dollied back far enough to show the bar of the night-club. They order a drink, and then, to show the passage of time—and drinks—a close-up is shown of two

highballs being brought by the bartender's hands. The liquor rapidly empties itself out of the glasses which are quickly replaced with two more—and two more—each larger than the previous. This was done by single-

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frame animation during which one-half ounce of liquor was removed from the glass between exposures. The bartender's hands replacing the glasses was shot at 12 frames per second to speed up the action.

After the young man and girl had begun to feel the effects of the drinks "They lost their heads." We see a medium-shot of them, somewhat tight. Suddenly their heads leave their bodies by rising in the air and finally disappear, while one actor tries to drink and the other to smoke without finding their heads. Then the bartender returns to the scene with a tray, which he drops when he sees them headless and exclaims, "My gosh, they lost their heads!"

That trick was done by double-exposure. A target for aiming the camera by means of the cross-hairs in the reflex finder of the Ciné Special was set up on the bar. The bar background and the two actor's bodies were covered with black flannel. The action shows their heads looking at each other in amazement as they float away from their bodies.

The camera was panned during the action so the heads floated out of the picture. To return the camera to the same spot after rewinding the film, the target was set up on the bar and ori-

ented by the cross-hairs in the reflex finder. Without any movement of the actors' bodies during this time (you remember their heads only turned and looked at each other), the camera is now in a position to record the bodies so they fit to the heads. This time only the actors' heads are covered with black flannel while their hands bring a cigarette and a glass up to where the heads should be but cannot be located. Then the headless bodies get up and start to stagger out of the scene.

In the next scene "They got hitched"—still headless, of course. Outside of a parsonage at night (shot on infra-red film) the two actors are seen in front of a preacher as he pronounces them man and wife—during which the camera is dollying back and we see that they are hitched to a gig which they start pulling away. Then the parson says, "In other words, you are hitched."

As we see only the backs of the couple it was easy for them to lean their heads forward and raise the shoulders of their overcoats so you can see no trace of their heads while they trot down the country road. This imaginative way of portraying a marriage scene is typical of the kind of humor shown in the picture.

In another shot "She hits the ceiling"—This was done with the help of plenty of black flannel and tilting the camera down while she is supposed to rise and hit the ceiling superimposed on a second, stationary-camera shot of the room alone. A quick cut to a close-up of the girl's head bumping against the ceiling with an expression of pain on her face and the sound of the bumping—all this resulted in a very realistic effect.

The most difficult trick took a long time to figure out because Director Fels kept asking for a close-up of an eye lying on a man's hand, alive and blinking to portray the expression "She gave him the eye." Finally, after asking five or six times how it could be done, he asked for an eye in the hand! Quick as a flash, the cameraman said, "Oh, that's easy, why didn't you ask it that way before?" The matte-shot with male and female cut-outs mounted on glass placed in front of the lens was suggested, and this worked out quite satisfactorily.

The thing about the picture which surprises most professionals, however, is the excellent synchronism of the post-recorded sound. After finally editing and cutting the film, the actors, the narrator, Gordon Bradley, and the sound-effects man (amateurs, too) gathered. They practised their parts while the film was projected through a glass window. All the sound-effects required by the action were devised and rehearsed so as to give the proper illusion. After about six rehearsals, the group went to a recording studio where the entire sound was recorded at a moderate cost.

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Vege-Table-Top Follies

(Continued from Page 177)

a long plastic knitting-needle concealed by her feathery foliage. Finally on the stage alone, she bowed a graceful close and remained away despite our admiring applause. All of this action took place on a large mirror, reflecting the entire ballet quite effectively.

Ah! "A Follies" wouldn't be worthy of the name without the naughty strip-teaser. After all we had to add a little spice to all that soup material . . . hence, Bubbles Banana. Of necessity we used a stand-in for her, as we couldn't risk a change of complexion while arranging the spot-light and back-drop that would display all her creamy loveliness. When ready to shoot, we saw the fair Bubbles with glamour plus, wrapped up to her chin in her natural attire (satiny yellow skin) slowly drop her robe and emerge—not quite as you are used to seeing her, to be sure, for we saw fit to add a few luscious curves here and there. Her bannana-skin wrapper was peeled down bit by bit, during which time her additional curves were added and shot with single-frame action. As a spectacular climax to our star's performance, we dissolved the End Title in a red heart right across her little . . . er . . . ah . . . oh well, you know what they always say at the finish! END.



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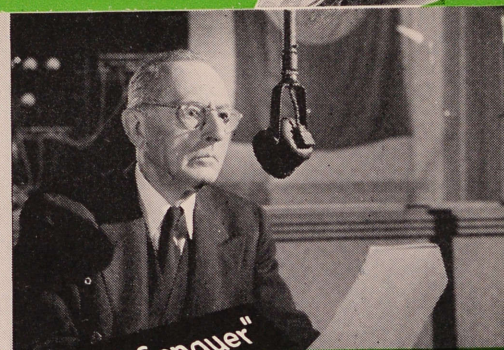
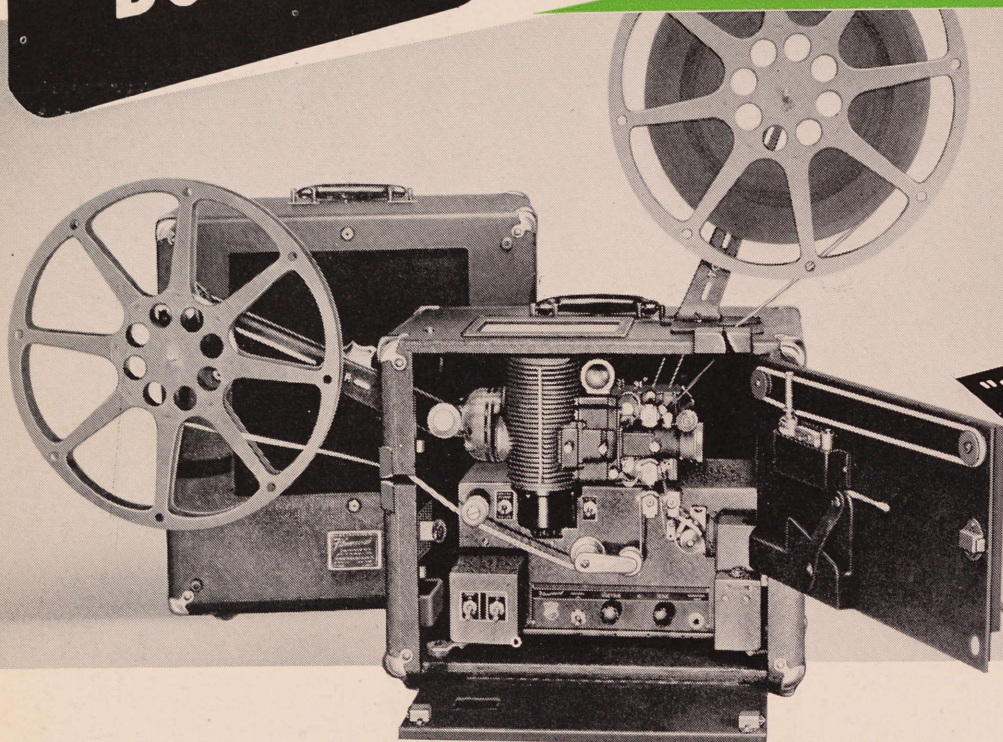
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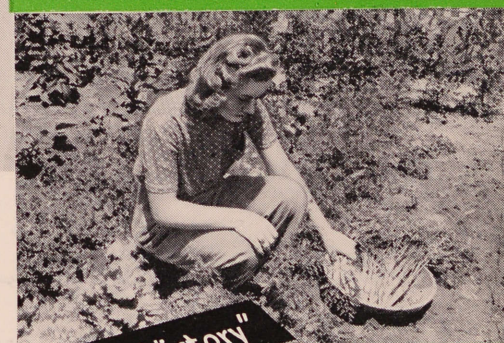
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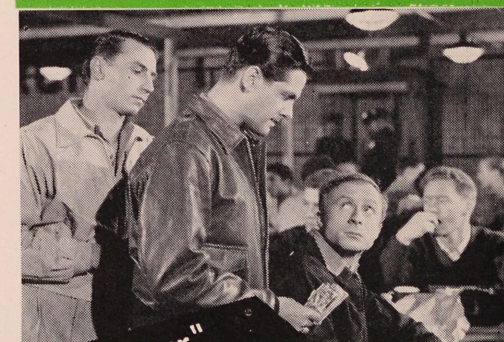
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